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THE GROWTH OF THE
DOCTRINE OF INTEREST.

An Historical Study of
Education as Child vs.
Subject Matter Centerdd.

by

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Introduction.

This thesis is written for the purpose of tracing the history of the growth of the conception that the child and his immediate life and interests are the chief concerns of education,- in short the history of the growth of the Doctrine of Interest.

It will start with Jean Jacques Rousseau, evaluating his chief contributions to this conception, and proceed in like manner with the great educators, Johann Heinrich Pestalozzi, Friedrich Froebel, Johann Friedrich Herbart, Horace Mann, Charles DeGarmo, Francis Wayland Parker, and John Dewey, and a selected group of modern educators, James F. Hosic, Sarah E. Chase, Ellsworth Collings, William Head Kilpatrick, Franklin Bobbitt, and Charles McMurry.

In order to more accurately evaluate the contributions of each of the various educators, a scale will be submitted. The first column gives the proportion of the total value assigned to theory and to practice; the second the total value of the point,- the sum of the value of theory and of practice; the third the proportion of the value assigned which is awarded to the educator, and the sum of the two; the fourth the product of columns two and three, or the exact rating given the educator.

The rating given each educator is the estimate given by the writer of this thesis, after careful study; obviously such a rating, being a matter of individual judgment, does not lay any claim to infallibility.

Scale of the Doctrine of Interest.

	I. Theory & Practice.	II. Value of Point.	III. Proportion Falling at This Point	IV. Product of II X III.
1. Subject matter as center, logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10		
2. Subject matter the aim, but modified to suit child's interest.	(12 (13	25		
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50		
4. Child as center - but definite aims for society- health, worthy home membership, etc.	(50 (50	100		
5. Child as center - no restraints, teacher follows	(25 (25	50		

In order to summarize the contributions of each educator to the Doctrine of Interest as concretely as possible, an imaginary child, Jimmie, will be used, and the outstanding characteristics of his education described.

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THE GROWTH OF THE DOCTRINE OF INTEREST.

Chapter I.

Historical Background.

No great institution which profoundly affects the welfare of civilization and of vast numbers of human beings has ever grown up in a night. The modern conception of education which places the child and his present as well as future life interests at the very center of its program has its roots far back in history. Great souled men who have been seers and prophets have caught the glorious vision of an emancipated childhood free to develop its present life to its fullest possibilities and to lay the foundation for the most fruitful adult life. This vision, however, has often been incomplete; frequently it has never been translated into actual practice, and even when it has, the practice has not equalled or accorded with the vision.

Back of this conception of a child-centered program of education, however, lies the age old idea of education as the absorption of subject matter logically arranged. This roots back as far as the old Greek culture when education was only for leisure, and the privileged aristocratic few.

At the time of the Reformation a very strong impetus was given to universal elementary education, but the old, authoritative, hide-bound, subject matter ideal remained unchanged. In the elementary school the curriculum consisted largely of learning to read the Bible and the catechism.

The work of Francis Bacon, however, with its emphasis upon scientific inquiry by the inductive method, furnished an entirely new view point. Although subject matter still dominated, a method of procedure was established which necessitated individual inquiry and research, and also called for observation and the use of the senses. While Bacon was thinking largely on the adult level, yet a foundation was laid which great educators like Rousseau and Pestalozzi, as well as Froebel built upon.

With the dawn of the eighteenth century this new spirit of research was fully under way and resulted in a swing away from complete church control, and the strengthening of the conception of education as preparation for life in a human society rather than life beyond the grave.

In order to make clearer this older and still persistent conception of education as wholly concerned with the acquisition of logically arranged subject matter, it may perhaps be helpful to show just how it would affect a specific child, whom we will call Jimmie.

This education of the pure subject matter persuasion dresses Jimmie, or James, as an adult with knee breeches, a waistcoat, a powdered wig, and possibly a sword. He must deport himself very

decorously as becomes a young gentleman. At his desk he must sit erect and as nearly motionless as possible, considering his unruly hands and feet,- bound to swing if they do not touch the floor. He has individual instruction from the teacher which consists of the assignment of lessons from textbooks, not illustrated in the earlier days. There are no objects which he can handle in the class room,- the place for his hands is folded on his desk, or painstakingly copying script. He must memorize his lessons just as they are arranged in the book, and not according to his interests. He must not be taken out into the real world to observe actual things.

The modern Jimmie whose teacher still adheres to the subject matter point of view has more freedom of movement, some pictures to illustrate his lessons, also a little hand work, and probably some objects. Yet it is subject matter carefully outlined by the teacher that is considered, not Jimmie who is wiggling in his seat and longing to do something, looking out of the window and wishing he might be out there in the real world, or listening to the purr of passing autos and yearning to be going and doing. Perhaps he will soon be fourteen years old, and then he will go out and get a "real job" where he can participate in some actual work in which he is interested because there is an end in view, something made with his hands or a pay envelope.

Chapter II.

Jean Jacques Rousseau,

It is rather an enigmatic and contradictory character who is the first of our heroes in the history of the doctrine of interest,- Jean Jacques Rousseau, 1712-1778. A man of far visions who at times seems almost inspired, whose educational theories have been revolutionary; and yet whose personal character belies his theories. A man who could soar to the heights, and yet whose human frailities dragged him to the depths.

He strikes straight across the traditional views of subject matter, and its sacrosanct nature, almost despising it, and relegates it to a most subordinate position in education. Ever a man of impulse, he would flee existing conventions of society and set up a training that should be natural and spontaneous.

His great literary work is 'The Emile", a book in five parts treating of the education of an imaginary young aristocrat. He inveighs against the preponderant emphasis upon a formal subject matter; "Words, always words, and nothing but words. .... Among the various branches of knowledge which they claim to teach they take particular care not to choose any which would involve a knowledge of things which they could never succeed in giving." (37 (Archer, "Rousseau on Education," p 110) Again he asserts that "A man cannot believe what he does not understand." (Ibid p 52)

He would take away all books from "Emile" up to the age of twelve. "In thus relieving children of their school tasks I take away the instrument of their greatest misery, namely books. Reading is the scourge of childhood and almost the only occupation that we know how to give them. At the age of twelve Emile will hardly know what a book is. But I shall be told that it is very necessary that he know how to read. This I grant. It is necessary that he know how to read when reading is useful to him. Until then it only serves to annoy him. (1, Graves, "Great Educators of Three Centuries." p90)

There is, however, one book which he would recommend for the use of "Emile",- "Robinson Crusoe." It is of value because it portrays a condition which would call forth the interest and activity of the child.

These quotations imply Rousseau's emphasis upon real experience and physical activity rather than formal subject matter in education. "Children are always in motion, quiet and meditation are their aversion; a studious or sedentary life is injurious to their health and growth."(37, Archer, "Rousseau on Education." p 28) Again he says: "Reflect that he will learn more by one hour of manual work than he would retain from a whole day's explanation." (Ibid p 164)

Closely allied with physical activity is the activity of the senses which he plainly sees must be educated in order to give meaning to subject matter. "In any study, unless we possess the ideas of the things represented, the symbolic signs are valueless. .... Thus while we imagine we are giving him a description of the earth, we are only teaching him to recognize a map(Ibid p 112

Another quotation will serve to strengthen this position. "Train not only the active powers of children, but all the senses which regulate these powers. Benefit each sense as much as possible and prove the impression made upon one sense by that upon another." (38 Barnard, "Journal of Education. Vol V.p 475)

This education which is to depart from the traditional view of subject matter is to be fitted to the age and development of the child rather than to a body of logically arranged subject matter. Rousseau shows that there are characteristic differences at different stages. The early stages up to twelve years of age, as already stated, are to be occupied with a purely natural existence in connection with the world of nature. At the age of twelve, however, the time for more formal instruction has arrived. Yet Rousseau realizes that into the brief period of three years between twelve and fifteen years of age, not much subject matter can be crowded, so he advocates that only that which is strictly useful to life shall be included. Thus he limits instruction to the natural sciences. The method of instruction is through the appeal to natural curiosity and investigation. Thus the basis of instruction is not authority but reason, and personal interest.

In considerind the different stages of development of the child, he arrives at another important educational conception which modern education stresses,- that of individual differences. "Apart from general human characteristics, each individual is born with a distinctive temperament which determines his genius and character, (37, Archer, "Rousseau on Education." p 29)

But not only does Rousseau depart from the traditional point of view with regard to the subject matter of education. He also enunciates one of the vital educational principles of the child-centered program. Education is not a preparation for life; it is life itself. "He that is best able to bear life's goods and ills is the most truly educated; true education lies less in knowing than in doing. We begin to learn when we begin to live." (Ibid p 65)

Again he says. "We do not know childhood, acting on the false ideas we have of it, the farther we go, the farther we wander from the right path. The wisest among us is engrossed in what the adult needs to know and fail to consider what children are able to apprehend. (1, Graves. "Great Educators of Three Centuries." p 101)

He inveighs against the old education in characteristic words, "What is to be thought, therefore, of that cruel education which sacrifices the present to an uncertain future, that burdens a child with all sorts of restrictions and begins by making him miserable in order to prepare him for some far off happiness which he may never enjoy." (Book 1. Emile)

Not only is it wrong to consider the future rather than the present needs of the child, but it is also futile. "A more certain incentive than any .... is the wish to learn. Give the child the wish .... any method will then be suitable. .... The grand motive,

the only motive which leads him far ahead with certainty is present interest. (37 Archer, 'Rousseau on Education.' p 120) He also says "They reason excellently on matters with which they are acquainted and which concern their present and obvious interests." (Ibid p 110)

Notwithstanding these clear cut statements regarding the function of education to minister to present life, he yet slips back into the older conception and in protesting that education must not be a means of preparation for citizenship in any particular government, much less for an occupation; he says it should develop manhood and fit for the duties of life, which are by implication adult. Thus does he show his ever recurring tendency to return to more traditional views. Yet in all fairness it must be stated that the former quotations are more representative of his oft repeated conceptions.

What can be said for Rousseau as to his contributions to the great movement which has led to the release of the child from the bondage of a set program of subject matter calculated to prepare for adult usefulness? Perhaps, first of all, that he formulated in his brilliant literary style principles which have been both revolutionary and leavening.

His own words will best convey an understanding of his literary genius. "I felt suddenly dazzled by flashes of illumination; crowds of clear ideas came to me in a moment with a confusing force which left me inexpressibly troubled; my brain seemed dazed like that of a drunken man. .... Could I ever have written a quarter of what I then saw and felt, how clearly should I have revealed the contradictions of the social system." (Ibid p 23)

When a man of such literary genius can give the world the important truth expressed in the following words; "As mankind has its place in the world, so has childhood its place in human life; we should consider the man in the man and the child in the child." (Ibid p 92) they grip the minds of educators and "start something."

Thus he made a powerful contribution to faith in the possibilities of education and its influence. His stress upon the imperative necessity of knowledge of things themselves rather than mere words, and activity rather than passive absorption of subject matter led to the great reformation of Pestalozzi in the education through the senses, and of Froebel in education by self activity. Many of the great educators who have caught the vision of a child-centered education have been inspired by him. He has also led to the foundation of a new child psychology.

Great as his service has been to the doctrine of interest, the gold which he furnishes is plenticusly mingled with alloy. He has climbed a mountain peak and viewed from afar the glorious spectacle of a joyous childhood which is the object of intelligent and loving interest and an educational system which has relegated subject

matter to an entirely secondary place, but he has not offered any practical help for attaining that lofty ideal. His is a theory which he never reduced to practice; an ideal which he never translated into reality.

Notwithstanding his statements emphasizing the fact that education must consider the present life of the child, Rousseau appears to have written his educational dream, "The Emile" with the life of the adult in mind. He may believe that the most effective way to educate the child during each of the stages of his life is in accordance with his present interests and needs, but all the while he is so educating him with the thought of his adult life in mind.

Also his theories, as already mentioned, frequently contradict each other. At one time he says; "The Child should choose his own occupations, but you should always be at his side to anticipate all his opinions and prevent those that are wrong." (37 Archer, "Rousseau on Education." p 165) At another, the child should learn from "natural consequences." If he breaks furniture let him suffer the inconveniences entailed. Thus he tells you in one breath that you should ever be near to guide the child and to protect him, and in another that he should learn by his own mistakes.

What educator would endorse his theory of the education of girls? "The whole education of woman ought to be relative to men. To please them, to be useful to them, to make themselves loved and honored by them, to educate them when young, to care for them when grown, to counsel them .... these are the duties of women at all times, and what should be taught them from infancy." (1 Graves, "Great Educators of Three Centuries." p 96)

In contrast with the accepted views with regard to the social function of education is his scheme of bringing up "Emile" in a sort of "social vacuum." Were such a thing possible, it could hardly be considered for the best interests of the child. Again, only the priviliged child was to be educated. "Emile" was a young aristocrat; the common herd was entirely neglected.

What of our child, Jimmie, by whom we are to test the various educational theories? Under Rousseau he would surely be an unfettered young creature released from the dull grind of subject matter. He would be allowed to roam at will throuugh the fields. If his young Lordship desired to break furniture, nobody would hinder him, but he might suddenly find that he had no chair to sit upon. If he felt rather bewildered as to the consequences of his acts, noone would enlighten him; he must learn for himself. He would be allowed to follow his impulses and left at the mercy of them without much advice as to their direction or control.

If he desired to investigate objects of nature, he would be free to follow his bent until he was twelve years of age, but he could not find answers to his questions regarding his investigations from books. He might follow his impulses and appropriate what he chose, but if he interfered with the rights of others and suffered their displeasure, it would be difficult for him to know why or to

avoid his misdemeanors in the future, for his training was unsocial.

At twelve years of age he would have a sound body, a wealth of sensational experience, and a freshness of interest with an opportunity to follow whither it lead him. Life would lie before him. He would be a soul free from the shackles of the past, but undirected in the use of his new found freedom.

Our purpose in this study is to ascertain as nearly as possible the contributions of each of the great educators considered, and their position with regard to the Doctrine of Interest. In order to do this they will be evaluated by the scale given in the introduction, page 1.

	I. Theory & Practice	II. Value of Point	III. Proportion Falling at This Point		IV. Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study	(5 (5	10	5 5	10	100
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25	12 13	25	625
3. Aim as in #2, but further modified to suit child's interest.	(25 (25	50	25 15	40	2000
4. Child as center - but definite aims for society health, worthy home membership, etc.	(50 (50	100			
5. Child as center - no restraints, teacher follows	(25 (25	50	25 --	25	1250
Total credit.					3975

Although Rousseau tried to swing away from the traditional view of subject matter, he could not discard it. He did repudiate it almost entirely for the first years of the child's life, only to resort to it in his later training. He is, therefore, given full credit under class #1. Yet he surely did advocate that it be "modified to suit the child's interest," and at times "further modified by adaptation to local appeals;" therefore full credit is awarded him under #2, and much credit under #3. At the same time his unusual antipathy for society itself permits no credit under #4. Because he advocated so frequently almost complete freedom for the child under twelve years of age, a very generous credit is given him for theory under #5. The rather meagre final rating given is due in part to his neglect of educational practice; it is hardly fair to guage his significance in the field of education by this rating.

Chapter III.

Johann Heinrich Pestalozzi.

Inspired by the epoch making educational visions of Rousseau but far transcending him in character and in actual practice was the gentle Pestalozzi. It is not without reason that his picture is in every Swiss school house, for he devoted a pure, self sacrificing nature as well as an original mind to the cause of child and his uplift through education. He translated some of the best theories of Rousseau into practice and extended them to include all classes of children.

His conception of the human being as the center of education is expressed in the following words: "What man is, what he needs, what elevates him, what strengthens him and weakens him, such is the knowledge needed, both by a shepherd of the people and by the inmate of the most lowly hut." (36 "Barnard, "Pestalozzi and Pestalozzianism." p 723) He makes the child's own needs the starting point of education, "This wisdom which reveals itself thru the necessities of our condition, strengthens and educates our practical capacity; and the mental training which gives it, is simple and steady, consisting of the action of all the powers upon the phenomena of nature in their actual relations."(Ibid p 726)

Like Rousseau he scores the traditional education based upon mere words, "For more than a century in the lower schools a power over the human mind has been accorded to empty words, which not only in itself destroyed the power of attention to the impressions of nature, but destroyed the very susceptibility itself of man to them."(Ibid p 688)

He contrasts his own educational conception with this false one. "I believe that the first development of thought in the child is very much disturbed by a wordy system of teaching, which is not adapted either to his faculties or the circumstances of his life. According to my experience, success depends upon whether what is taught to children commends itself to them as true thru being closely connected with their own observation. As a general rule I attached very little importance to the study of words, even when explanations of the ideas they represented were given." (1,Graves, "Great Educators of Three Centuries." p 129)

He grasped the great truth that education must be graded to accord with the progressively unfolding capacities of the child. "The natural, progressive, and harmonious development of all the powers and capacities of the human being .... the knowledge to to which the child is to be led by instruction must, therefore, be subjected to a certain order of succession, the beginning of which must be adapted to the first unfolding of his powers, and the progress kept exactly parallel to that of his development."(Ibid p 145)

With Rousseau he emphasized the supreme importance of the senses to education. "In recognizing observation as the absolute basis of all knowledge, I have established the first, the most

important principle of instruction. .... All knowledge must proceed from observation, and must admit of being retraced to that source." (36, Barnard "Pestalozzi and Pestalozzianism." p 75)

By observation he means the directing of the senses outward to objects, and exciting consciousness of the impression on the senses by those objects. He, therefore, in his famous schools at Neuhof, Stanz, Burgdorf, and Yverdon actually worked out an educational practice to fit this theory of observation. His work was not haphazard; he contended that the understanding collects the impressions which the senses receive from external nature, and then develops the ideas until they become clear. Thus observation,- sense impression,- is only the first step and meaningless unless properly related to the mental capacities.

They must form an idea and define objects and then comes the necessity of expressing ideas in language. He says. ""Experience must be clearly expressed in words, or otherwise there arises the same danger that characterizes the dominant word teaching,- that of attributing entirely erroneous ideas to words." (1 Graves, "Great Educators of Three Centuries." p 147)

Manual labor is also a vehicle for the expression of ideas which have been constructed from the material supplied by the senses, "I am more than ever convinced that as soon as we have educational establishments combined with workshops and conducted on a truly psychological basis, a generation will necessarily be formed which will show us by experience that our present studies do not require one tenth of the time or trouble we now give them." (Ibid p 130)

Thus Pestalozzi's statement that he wished to psychologize education is substantiated. This also called for a simplification of the elements of knowledge. The reduction to a series of exercises so scientifically graded that even the lower classes could obtain proper physical, mental, and moral development. In this process he maintained. "It is necessary never to proceed to any new thing until what precedes has been learned beyond the power of forgetting."(36 Barnard, "Pestalozzi and Pestalozzianism," p679)

His method of teaching the various school subjects carries out these principles. Language exercises were given by means of examining number, form, position, and color of designs, holes and rents in the wall paper of the school and expressing observations in longer and longer sentences. Arithmetic by devising boards divided into squares upon which were put dots or lines concretely representing each uhit up to 100. Drawing and writing by teaching simple elements of form. At Yverdun Buss helped him work our a system. "Objects such as sticks or pencils were placed in different directions and lines representing them were drawn on the board or slate until all elementary forms, straight or curved were mastered." (1 Graves, "Great Educators of Three Centuries. p 140) Geometry was taught by drawing angles, lines and curves. Much use

was made of squares, which were divided into smaller squares or rectangles and thus sense impressions preparatory to geometry were furnished. In reading exercises known as "syllabaries joine the five vowels in succession to the different consonants, ab, eb, ib, ob, ub, and so on thru the consonants. Religion and morals were taught by the child's experiencing the love of mother and other human beings rather than by dogma and catechism.

His great love for the child as well as his keen intuition of the necessity of adapting education to the child's understanding made him concentrate all his powers upon the present life and steady development of the child. Yet he did not appear to reach the conclusion that the main business of education was to minister to the child's present life; he still conceived the main aim of education to be to fit for a useful adult life. Because he loved the child, and because he could only thus educate him, he studied the child's present interests and capacities. He plainly recognized the fact that the child's interest started with himself and his present experience. "The circle of knowledge, through which every man becomes blessed, begins immediately around him; from his being; from his closest relations; extends from this beginning; and at every increase must have reference to truth, that central point of all powers for blessing." (36 Barnard, "Pestalozzi, and Pestalozzianism." p720)

His first great interest in education was aroused because of his conception of its redemptive and reformative possibilities. This belief underlay his work on his own farm at Neuhof. The implication was that adult society would thus be reclaimed and uplifted.

Brief mention should be made of Pestalozzi's literary work because of its influence upon other educators. His most important educational works are: "The Evening Hour of a Hermit," consisting of 180 aphorisms regarding education; "Leonard & Gertrude," the beautiful story of a Swiss woman who reformed her husband and educated her children, influencing her whole village; "How Gertrude Teaches Her Children," containing the foundation of his system and of most modern reform in elementary education, and "Christopher and Alice."

It must have been already clear that Pestalozzi is one of the great figures in the history of all education, and especially of that which gives first place to the child. His own life and character dominated by a passionate love for childhood and a keen grasp of the real problems involved in the acquisition of knowledge is one of his outstanding contributions. His religious convictions and their relation to his vocation are expressed clearly in these words; "Thus faith in God is the source of all wisdom, and all blessings, and is nature's road to the pure education of man." (36 Barnard, "Pestalozzi, and Pestalozzianism." p 728)

His conception of the supreme importance of the individual is shown in his words, "The general elevation of these inward powers of

the human mind to a pure human wisdom is the universal purpose of the education even of the lowest men.' (36, Barnard, Pestalozzi, and Pestalozzianism.' p 724)

He believed that the basis of education is not to be constructed, but to be sought; it exists in the nature of man, which contains an inborn active instinct of development. Thus "Education ought to be free and natural instead of being cramped, confined, servile. .... The child should have sufficient liberty to manifest decidedly his individual character."(Ibid p 23) Education ought also to be practical drawing its means of development from the actual circumstances of life.

Certainly his psychological insights in relation to education are invaluable as points of departure for a sure psychological foundation of education. Thus his insistence upon the importance of the senses and their training, the formation of clear ideas and their expression in language,and manual activity are most important. "Nature develops all the human faculties by practice; and their growth depends upon their exercise. The method of nature for educating humanity is the explanation, and practice of its knowledge, its gifts, and its qualities." (Ibid pp 724,5.)

He says, " Education should be based on intuition, on a clear and distinct perception of the subject to be learned," (Ibid p 33) And again; "Knowledge rises by degrees from the lowest thing to the highest, and we shall make great progress in our lives if we begin thus." (Ibid p 594)

DeGarmo characterizes this contribution thus; "This then is the great merit of Pestalozzi, that whereas the men of his time began instruction with the abstract, with words whose content was unknown to children, he began with the individual things from which alone the abstractions could gain any significance in the minds of the pupils.Instead of presupposing an experience, he supplied one."(12 DeGarmo."Essentials of Method." p 61)

Unlike Rousseau he bases his whole educational system upon the conception of the child as the member of a human society which profoundly influenced him and toward which he has a responsibility. He says; "Man thou livest not for thyself alone on earth. Nature educates thee for relation with those without thee." (36 Barnard, "Pestalozzi and Pestalozzianism," p 727)

Allied to this social insight is his passion for elevating society. "The poor, the defective, and the degraded have thru his efforts been redeemed and given an opportunity in life, and many children have been kept in school that would inevitably have fallen by the wayside." (1,Graves, Great Educators of Three Centuries." p 152)

His contribution to the cause of manual training and industrial development is not insignificant. Through his example at Neuhof, and Stanz, and still more thru the model institutions of his disciple, Fellenberg, various types of industrial education have come to supplement academic courses.

Graves reckons one of his greatest contributions to be the initiation of the empirical method in the field of education, "If he never produced a closed and perfected system so much the better. It is not merely the form of his experience nor even the results, but the fact that he believed in finding his theory through experiment and not tradition, that made the work of Pestalozzi suggestive and fruitful afterward."(1. Graves, Great Educator s of Three Centuries." p 153)

Not the least of his contributions was the introduction of a new spirit into the schools by which it has approached the atmosphere of the home.

How would our child Jimmie fare under the instruction of Pestalozzi? He would find a teacher who would be really concerned about all that affected his young life. One who would penetrate beneath all his joyous pranks and inconsistencies and understand. Who would inspire him to be his best self morally and intellectually. If he were an orphan or an outcast, he would find in Pestalozzi a friend who would give him a home and loving care, gentle admonition, and intelligent instruction.

He would be encouraged to observe all the objects which he daily comes in contact with, to experience them thru his senses,- touch as well as sight. All the experiences of his young life would be made to yield to him an educative value. Even in school hours he would be encouraged to use his senses. The usual subjects of instruction would be taught to him as outlined above.

He would assemble with the other boys at eight or nine in the morning and continue under the absorbed instruction of Pestalozzi until he was so weary that he and the other pupils would leave the room one by one. Pestalozzi, finally discovering himself to be alone would go for a walk down by the river, and if Jimmie chanced to follow him, he would see him picking up small white pebbles, and tying them in his handkerchief, for what purpose neither Jimmie nor anyone else would ever discover.

Jimmie would be taught things that interested him at his age and stage of development. Yet he would not be released from all effort, but rather his interest would be enlisted so that effort was not drudgery. He would be allowed to be a real boy investigating objects and experiences in life which fascinated his versatile attention. Yet he would be required to think about his experiences, and report upon them. He would also be required to live and work with his fellows and to consider their convenience as well as his own.

With regard to the scale by which the educators are being measured, Pestalozzi is evaluated as follows:

	I. Theory & Practice	II. Value of Point	III. Proportion Falling at This Point		IV. Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10	5 5	10	100
2. Subject matter the aim, but modified to suit child's interest.	(12 (13	25	12 13	25	625
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50	25 20	45	2250
4. Child as center - but definite aims for society health, worthy home membership, etc.	(50 (50	100	10 10	20	2000
5. Child as center - no restraints, teacher follows	(25 (25	50			
Total credit.					4975

He did strive to leave behind class #1 in which the child is not considered, subject matter being the *only* important thing. Yet he could not release himself from its bondage. He is, therefore, given full credit under class #1. But because he did try sincerely to break away from the pure subject matter view point, he is given full credit under #2.

Further, in his clear conception of the necessity of the utilization of the senses, he advanced beyond class #2, and is clearly entitled to much credit under class #3. He is, therefore, given 25 points in theory and 20 points in practice.

Because of his great love for the child and his earnest desire to study him, and to fit him,- in some instance reclaim him,- for his place in society, he is given 20 points under class #4.

Chapter IV.

Friedrich Froebel.

Now another great educator, Friedrich Froebel, 1782-1852,- enlists in the mighty struggle to exalt the child himself above a static, dead subject matter. He maintained that it is the chief business of education to make the child a thinking, conscious intelligent human being. All of his educational theories were deeply influenced by his intense religious experience and belief. He looked upon the child as the manifestation of the divine spirit in human form; as comprehending within himself unity,- God,- diversity,- nature,- and individuality,- humanity.

His profound conviction regarding the supreme importance of the child and his purpose as an educator are clearly expressed in his own words: "I desire to educate men whose feet shall stand on God's earth, while their head towers up to heaven, and reads its secrets with steady gaze, whose heart shall embrace both earth and heaven,- that unites in its love God's earth and God's heaven." (14, Michaelis & Keatly, "Autobiography of Froebel." p65.

He was the first great champion of the little child. Perhaps it was because of his own childhood which was so misunderstood that he so lavishly poured out his life and effort in order to give to the little child an education which should enable him to enter into and enjoy life itself. He says; "Unceasing self-contemplation, self-analysis, and self-education have been the fundamental characteristics of my life from the very first, and have remained so until these latest days."(Ibid p. 11)
And of the impression made upon him by nature. "The impression which the clear sky and pure air made on me has remained ever since present to my mind."(Ibid p 6)

Very naturally he was attracted to the great Pestalozzi, and spent two years with him at Yverdon teaching and observing. He absorbed both information and inspiration. "All the things I heard of him siezed powerfully upon me,- especially his desire in some nook and corner of the world to build up an institution for the education of the poor." (Ibid p 53)

Yet he had a distinctive educational genius of his own, and could not wholly agree with Pestalozzi. "In the methods ....I failed to find that comprehensiveness which is alone sufficient to satisfy the human being. "(Ibid p 82)

With Pestalozzi, however, he insisted upon the importance of the senses in education, but his religious and philosophical convictions determined his position with regard to their function. "To make the internal external, and the external internal and find unity for both." (13, Froebel, "The Education of Man." pp 41,42)

It is not possible to understand Froebel's educational theories and resulting practice without taking account of the philosophical principles upon which they are founded, for his idealistic philosophy profoundly influenced all his thought. He believed ultimate realities to be bound together in one system of unity. "All is unity, all rests in unity, all springs from unity, strives for and leads up to unity, and returns to unity at last."(14, Michaelis & Keatley, 'Autobiography of Froebel. p 69)

Thus he held 'Education consists in leading man, as a thinking intelligent being, growing into self-consciousness, to a pure and unsullied, conscious and free representation of the inner law of Divine Unity, and in teaching him ways and means there to." (13, Froebel, "The Education of Man." p 2)

Proceeding out of this fundamental principle of unity was his conception of continuous development, mental, moral, and physical, of the human being. ""God creates and works productively in uninterrupted continuity. .... God develops the most minute and imperfect elements through ever-rising stages, according to a law eternally founded in itself, and ever unfolding out of its own nature." (1, Graves, "Great Educators of Three Centuries."p209)

Perhaps the principle which directly influences his educational theory and practice most profoundly was that of creativity thru self activity. Develepment "should be brought about, not in the way of dead imitation or mere copying, but in the way of living, spontaneous self activity. .... In every human being, as a member of humanity and as a child of God, there lies and lives humanity as a whole; but in each one it is realized and expressed in a wholly particular, personal, and unique manner, and it should be exhibited in each individual human being in this wholly peculiar unique manner.' (Ibid p 213)

These philosophical principles largely determined his attitude toward the function of subject matter. He says, "Never forget that the essential business of the school is not so much to teach and to communicate a variety and multiplicity of thingsas it is to give prominence to the ever-living unity that is in all things."(13, Froebel, "Education of man. p 135)

Thus things themselves are not the important consideration, but rather the realization of a unity by means of which the human being could best realize his own personality. He expresses this same truth in these words. "Education should lead and guide man to clearness concerning himself and in himself, to peace with nature, and to unity with God." (Ibid p 5)

His conception of the continuity of the development of the child made him see the importance of educating the young child, and led him to spend years of study and of practice in devising means to educate him from his earliest years in accordance with

the laws of his own nature and of God's creation. Because of his realization of the great significance of creativity which expresses itself thru self activity, he devined the extremely important function of play in the life of the young child. Play was not a negligible, chance expression of the child, but rather "The highest phase of child-development at this period; for it is self active representation of the inner,- representation of the inner from inner necessity and impulse." (13, Froebel, "Education of Man." p 55) It is extremely important because "It gives joy, freedom, contemtment, inner and outer rest, peace with the world."(Ibid p 55)

Again he says, "Man is only what he makes himself to be. Man can make himself only that which he ideally is. Through activity he creates himself. In activity he reveals himself." (15 Blow, "Letters to a Mother." pp 48,49) The influence of his philosophy appears in the following quotation."The soul is essentially active; the activity of which we are conscious is but a part of our total activity;and voluntary activity is but a part of our conscious activity."(Ibid p 43) This great law of activity cannot be ignored without harm resulting, "The universal, the inexorable law of habit is that sensations pall with repetition, while all activities augment their joy."(Ibid p45) It is vitally connected with the moral life. "Moral life begins when conscious motives take the place of blind impulsion."(Ibid p113)

His insight into the necessity of beginning the child's education very early has already been mentioned. He believed it should start with the mother, and to this early education he devoted the major part of his educational activity. He devised a very elaborate program of songs, games, and pictures. He produced fifty play songs, each containing (1) A motto for the guidance of the mother, (2) A verse with music to sing to the child, (3) A picture illustrating the verse.

Susan Blow in her "Letters to a Mother," has enumerated and interpreted these games.(1) Falling game,- develops faith. (2) Play with the limbs,- point of departure for development of motor activity, (3) Weathervane play,- interpretation of movement not his own by unconscious imitation, (4) All-gone game,- transition from response to external seduction to impulsion of conscious ideals. (5) Clock play, tick-tack,- point of departure for rhythmic activity, (6) Taste song,- dawning consciousness that qualities are the deposit of activities, (7) Flower song,- consciousness that wherever there is self activity there is a soul. (8) Beckoning to the pigeons and chickens,- ascent of child from mere animism. (9) Fish in the brook,- the craving of life for life.

These games only serve to reemphasize how inextricably his educational theory is bound up with his idealistic philosophy. To make this yet more clear two further quotations from Susan Blow will be given. "Understood as a typical experience, the lesson of the falling game is that the nurture of childhood must be rooted and grounded in faith."(Ibid p 5)

The lesson of the play-with-the-limbs game is self-making. "Since man is a self-making being he demands from the beginning of his life the discipline of his energies." (15, Blow, "Letters to a Mother," p 40)

For the kindergarten Froebel devised an elaborate system of gifts and occupations. In it he used especially three coordinate forms of expression, song, movement and gesture, and construction. Growing out of these was the use of language by the child. These activities cooperated with and interpreted one another, i.e. the story told or read was expressed in song, dramatized in movement, and illustrated by a construction from blocks, paper, clay, etc. etc. He worked out a series of six gifts,- the cube, sphere, and other geometrical forms, and "occupations" which applied to different constructions principles learned by the "gifts." These "gifts" were so arranged that they carried out the principle of development, each exercising new activities, while using those already learned. The child was able to apply in practice what was learned through the gifts in occupations,- constructions with paper, sand, clay, wood and other materials.

Like Pestalozzi, Froebel attached great significance to language. He held that its great function was to unite the inner and the outer worlds of the child's experience. He says, "When he learns to separate the name from the thing, and the thing from its name, the speech from the speaker, and viceversa; when later on, language itself is externalized and materialized, in signs and writing, and begins to be considered as something actually corporeal, man leaves the period of childhood and enters the period of boyhood." (13, Froebel, "Education of Man." p 93)

That Froebel did actually minister to the nurture of the child's present life and interests is unquestionably true. He says. " Let us live with our children; then will the life of our children bring us peace and joy, then shall we begin to grow wise, to be wise." (Ibid p 89) In the mother play and in the kindergarten, adults certainly did live with little children sympathetically. In this process of living with the child, the adult should quicken the effort of the child in his own behalf. "To stir up, to animate, to awaken, and to strengthen the pleasure and power of the human being to labour uninterruptedly at his own education, has become and always remained the fundamental principle and aim of my educational work."(14, Michaelis & Keatley, "Autobiography of Froebel." p 11)

He unquestionably believed that the present life of the child is indissoluably connected with the later life; probably because of that fact as well as his love for children, he stressed the early education suited to the child. In fact he clearly says that the play of the child should be utilized to train for later activity.

The symbolism attached to gifts and occupations surely was adult. Thus in both theory and practice it must be conceded that

he held to the view point that it was the main function of education to prepare for adult life.

In this very brief study of Froebel it must be very apparent that erroneous educational theories are mingled with sound and valuable ones; he mainly errs in his stress stress upon symbolism. The principle of self activity, however, even though not converted into the best educational practice is a valuable contribution; one which is becoming more and more widely accepted. It is a very wide departure from the docile child obediently conning his lessons from a limited number of antiquated text books. Susan Blow says, "Froebel's great insight is that the human being is self-expressing." (15 Blow, Letters to a Mother," p 58)

The principle of grading instruction according to the age and development of the child is surely of great educational value. "I followed the leading of Nature herself, and with the data so obtained I worked out a representation of the place from direct observation." (14 Michaelis & Keatley, "Autobiography of Froebel) This was his method of teaching the child geography.

He also viewed the child as a social being who was profoundly influenced by his environment and who in turn had a responsibility toward the society of which he was a part. This conviction showed itself in his kindergarten practice in the games with the social occupations which inducted the child into the life and activity of society.

Not the least of his services to the child was the introduction of new subjects into the closed and sealed traditional curriculum. Ever since his day there have been an increasing number of educators who have included nature study and manual training in their curricula. Manual training followed from Froebel's conception of the importance of self activity; its significance in emancipating the child from activities which have no meaning for him has been very great.

He was the first to set a precedent for the education of the little child. Who can tell how much his influence has counted toward releasing the child from a position which was practically slavery, giving him loving consideration, and providing for him occupations and education suited to his age and development!

Our Jimmie would surely have a very happy time under Froebel. From the time of his first consciousness he would find himself the object of his mother's loving attention. He would be delighted by her attentions,- the songs she sang to him, the games she played with him, and the objects she gave to him. He would not understand much more than that it was delightful to be loved, played with, and presented with lovely colored balls, but his lack of understanding would not trouble him at all, even though it might his mother.

When he reached the age of three or four he would find himself in a kindergarten where he had bright colored balls, cubes and other curious objects given him. As he grew older more gifts would be presented to him, and he would be allowed to make things with his own hands. Oh what fun it would be to mess around with some clay that he might model as he wished! Again it would not matter to him that he did not fully understand what he was doing.

Then it would be a joy to be doing things with other little children, though he might be rather surprised at first when he was not allowed to appropriate what belonged to other children, or when he had to wait his turn in the play. Altogether he would be quite happy because he was surrounded with an atmosphere of love and kindness and because he was allowed to work with his hands. Yet he would not understand the underlying reasons for much that he was doing, but would learn much better if he were allowed more freedom to do simply those things in which he himself was interested and which he could understand.

In accordance with the scale by which all the educators are being measured, Froebel's rating is as follows:-

	I. Theory & Practice	II. value of Point	III. Proportion Falling at this Point	IV. Product of II X III
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10	5 5 10	100
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25	12 13 25	625
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50	15 20 35	1750
4. Child as center - but definite aims for society, health, worthy home membership, etc.	(50 (50	100	15 15 30	3000
5. Child as center - no restraints, teacher follows.	(25 (25	50		
Total credit.				5475

He, like Pestalozzi, sought to leave class #1 completely behind, but could not, and so is given full credit there. Like Pestalozzi he is worthy of credit in practice as well as theory because he painstakingly carried out his theories in the laboratory of the kindergarten. It seems only just to accord him

full credit under class #2, and further to grant him liberal points under class #3.

Surely he is due great credit because of his recognition of the place of play and of self activity in the life of the child. Yet because of his symbolism, springing from his idealistic philosophy, his attempts to make appeals to the interest of the child are not fully successful; they are too adult and divorced from the experience and understanding of the child. In theory he is given 15 points under class #3, and, because of the principle of self activity, in his practice 20 points.

His great love for the little child and his poineer work in the child's early years, as well as his interest in moral training, and education for life in society give him a credit of 30 points under class #4,

Chapter V.

Johann Friedrich Herbart.

Johann Friedrich Herbart, 1776-1841, was predominantly an educational theorist who carefully worked out the most logical and closely knit educational system that had as yet been conceived. Thus he was in marked contrast with Pestalozzi, who was constantly experimenting and never was able to produce any finished system. Yet Herbart was greatly influenced by his predecessor. He wrote a very kindly, but critical essay on Pestalozzi's book. "How Gertrude Teaches Her Children," in which he points out his educational faults and shows the development of his own ideas from that great educator's.

"Sense perception, he holds with Pestalozzi, does supply the first elements of knowledge, but the material of the school course should be arranged with reference to the general purpose of instruction, which is moral self-realization." (1, Graves, "Great Educators of Three Centuries." p 170)

Thus as Pestalozzi had succeeded in arousing Europe to the need of universal education and of vitalizing the formalism of the schools, Herbart created a system of psychology that had an immediate bearing upon education.

Herbart, notwithstanding his almost exclusively scholastic approach to education, was yet intenstly concerned with the child himself. He feally considered the child as of more importance than subject matter whose sole claim to merit was its ability to nourish the life of the child. He was, however, in marked contrast with Rousseau who had revolted ao completely against subject matter, firmly convinced that it had a very valuable service to render to the development of the child. "To instruct the mind is, he considers to construct it. Knowledge is no longer a mental ornament, it is a mental element. Knowledge builds up and produces mind. If it is true that there is no intellect apart from successive ideas, henceforth we must seek the bonds that unite them in cohesion, the interlacing of the ideas themselves."(17 Compayre, "Herbart and Education by Instruction." p 47)

It is not possible to understand Herbart's educational contributions apart from some knowledge of his most carefully worked out system of psychology. He departed radically from the old, erroneous faculty psychology. He held, "The mind in its original state is merely a tabula rasa. It has no content. It is created bit by bit, thanks to representations or ideas brought to it by sense-perceptions. (Ibid p 20)

He clearly sensed the law of apperception and its educational significance. "In order that a new representative may be received into the circle of ideas, that it may find

its way with ease and security amidst the network of knowledges, the teacher, at the beginning of each lesson must prepare the ground. (17, Compayre, 'Herbart and Education by Instruction.' p 30)

Also he did not overlook the relation of the subconscious to the conscious mental life and thus to education. Ideas being replaced by others, fall back into the subconscious. "They are not indeed annihilated, nor have they disappeared forever; they are merely latent; they continue in a condition of tendency, and they aspire to reproduce and reinstate themselves as soon as a favorable occasion will permit this to occur." (Ibid, p 23)

Ideas, however, have certain laws, the action of which must be recognized. "If ideas are more or less alike they tend to form groups and unite; that is what we call a 'fusion'. If they are merely different, unlike, they get mixed and entangled, forming a 'complex'. If they are contrary, opposed to each other, they cannot coexist, and they drive each other out. ....Ideas agree with each other or struggle together; the soul a dumb creature, has no objection to raise."(Ibid p 24)

Thus it is necessary that education be based upon ideas. "'Fusions" and 'complexes' of representations explain all phenomena of the intellect; abstraction, judgment, comparison, reason, the notion of self, not leaving out memory and imagination. The other phenomena of the soul, sentiments, desires, volition, are adequately accounted for by the relation of ideas to each other. .... fleeting modifications of ideas. They are the shadows that pass, the foundation of the mind remains, and this foundation consists of ideas." (Ibid p 25)

q Herbart fefers again and again to the law of apperception and its relation to education. "Each new idea or group of ideas is, therefore, retained, modified, or rejected according to its degree of harmony or conflict with the previously existing ideas. .... In other words all new ideas are interpreted thru those already in consciousness." (1, Graves, "Great Educators of Three Centuries." p 174)

Ideas, however, having been presented to the child in accordance with the law of apperception must be reflected upon and absorbed. "' We prescribe the general rule give equal prominence to absorption and reflection in every group of objects, even the smallest; that is to say, emphasize equally clearness of the individual perception, association of the manifold, coordination of the associated, and progress thru exercise according to this coordination." (Ibid p 182)

Herbart holds that these psychological principles indicate four steps in education; "(1) Clearness,- presentation of facts to be learned is purely 'absorption.' (2) Association, uniting of these facts with previously acquired is mainly 'absorption';

it includes elements of 'reflection,' (3) System, coherent arrangement of what has been associated in passive 'reflection', (4) Method, the practical application of the system by the pupil to new data is progressive or active 'reflection.'

In his famous doctrine of interest, Herbart shows how the child himself and his interests must be a matter of first consideration; only as this is the case will subject matter be of any value whatsoever. He bases instruction on the psychological principle of interest,- the interest which accords with the needs of the child. So very important a characteristic of Herbart's educational system is this doctrine of interest that a number of quotations will be given.

He says. "Instruction in the sense of mere information-giving contains no guarantee whatever that it will materially counteract faults and influence existing groups of ideas that are independent of the imparted information. But it is these ideas that education must reach; for the kind and extent of assistance that instruction may render to conduct may depend upon the hold it has upon them.'" (1 Graves, "Great Educators of Three Centuries." p 178)

Again, "The essential condition of fruitful instruction is that it excites interest and attracts it. .... To interest is to arouse the hunger of the intellect. .... The term interest then, is two-faced, it belongs at the same time to the object which arouses the taste and the subject in whom the taste is aroused. It is interest which is the spring of mental activity. .... The activity which Herbart denied to the soul itself he revived under the form of interest. "pp 47,48,49, (17, Compayre, "Herbart & Education by Instruction.")

Herbart values direct above indirect interest. "Direct interest is the true interest; it springs spontaneously from the things themselves, from the knowledge which the child gathers from his daily experience. .... these captivate the mind and hold it prisoner, while at the same time they arouse inspire, and quicken it. "(Ibid p 56)

He says that only direct interest is fruitful. "Indirect interest which we impose upon the child thru praise and blame .... leaves the mind in a relatively passive condition. It necessitates an effort, sometimes a painful effort .... in the effort which they make to maintain it (interest) they expend part of their strength, thus injuring the smoothness and clearness of their perceptions."(Ibid p 56.)

Not merely a few selected interests, however, are to be considered. Herbart would not narrow down the range of subject matter as did so many of his formal predecessors. He would lead the child out to rich and varied fields and inspire him to brouse in many fertile pastures. Since character is the

outgrowth of concrete knowledge, the subject-matter of the curriculum should cover the entire range of known ideas. Hence to correspond to the two main groups of interests Herbart divides studies as follows: (1) "historical",- history, literature, and languages, (2) "scientific",- including mathematics, industrial training and natural sciences.

He says "Narrow-mindedness is the inevitable consequence of education when it develops only one type of interest. It is evident, for example, that a mind will remain imperfect and limited if it is confined to speculative or religious interest without room being made for sympathetic interest. (17, Compayre, "Herbart & Education by Instruction," p 52)

Also. "Scattering no less than one-sidedness forms an antithesis to many-sidedness. Many-sidedness is to be the basis of virtue; but the latter is an attribute of personality, hence it is evident that the unity of self-consciousness must not be impaired. The business of instruction is to form the person on many sides and accordingly to avoid a distracting or dissapating effect. And instruction has successfully avoided this in the case of one who with ease surveys his well-arranged knowledge in all of its unifying relations and beholds it together as his very own." (1, Graves, "Great Educators of Three Centuries." p 160)

Now Herbart holds that interests spring from two main sources, "experience" which furnishes us with a knowledge of nature and "social intercourse" from which come the sentiments to our fellow men. Interests may, therefore, be classed as belonging to (1) knowledge, or (2) participation. "Knowledge" interests are classified as: a. "empirical" appealing to the senses directly, b. "speculative," seeking relations of cause and effect, c. "aesthetic" resting upon enjoyment.
(2) "Parcitipation interests are classified as:
a. "Sympathetic" dealing with relations to individuals.
b. "Social" including the community as a whole,
c. "Religious" treating the relation to the divine.

More carefully and clearly than any proceeding educator, Herbart has worked out a system of education based upon his conceptions of subject matter, the child and his interests, and his psychological capacities. He holds that there are four stages or steps of instruction: "clearness, association, systematization, and method." Again he says there are three modes or methods of instruction: "descriptive", "analytic," and "synthetic". He says that teaching should successively "show, associate, teach, and philosophize."

Herbart made an effort to select material for the course of study to parallel the development of the individual with that of the race. This emphasis was taken up and applied,

especially in the hands of his disciple Ziller, in the culture epoch theory.

That Herbart believed the interests of the child himself to be superior to a dead subject matter has already been contended. Now, he held that it is the moral character of the child that is the great end and aim of all education. He says;" The worth of a man is measured not by what he knows, but what he desires to do. .... If each act of the will is only an idea in action, an idea energized .... moral character itself is only a collection, a grouping of ideas that tend to become active." (17, Compayre, "Herbart & Education by Instruction." p 82)

The child, however, is born without moral ideas as without will. "Morality, like understanding as a whole is only the resultant from a series of operations, the product of experience." (Ibid p 93.

His great educational publication, "Outlines of General Pedagogy," opens with the term 'virtue' which expresses the whole purpose of education. Virtue is the idea of 'inner freedom', which has developed into an abiding actuality in an individual. Hence as inner freedom is a relation between 'insight' and 'volition' a double task is at once set before the teacher. It becomes his business to make actual each one of these factors separately in order that later a permanent relationship may result."(1, Graves, "Great Educators of Three Centuries." p 175)

To clarify 'inner freedom', and the ethical aim, he formulates four subsidiary concepts;"the effiency of the will", "good will", "justice," and "equity." He has, however, rather a curious system of ethics for he holds that moral ideas are not the source of moral authority. A moral judgment is an aesthetic judgment, which is absolute, not requiring demonstration but asserting complete authority. '' As soon as an aesthetic judgment springs up in the soul, it is felt as a force. .... This is the gentle pressure that mankind calls conscience.''(17, Compayre, "Herbart & Education by Instruction.'p98)

He is at some pains to reconcile his ethics with his pedagogy. He holds that moral education is in direct and strict correlation with intellectual education. In order, then, that moral education thus accepted be possible, aesthetic judgment must be formed by instruction. In moral culture there are six things which must be done: "(1) support the child, (2) incline him to act, (3) establish rules, (4) maintain in his soul calmness and serenity, (5) stimulate his intellect with approval and censure, and (6) warn and correct him." (Ibid p 1 04)

As regards discipline, while he admits the need of 'government' which is repressive, he clearly distinguishes it from 'training' or real moral education, for which it is intended to prepare. Training, rather than constant repression or emotional appeals, shapes the will for self-control.

Herbart's position with regard to education as a means of ministering to the child's present life and interests or preparing for his future life has already been implied. A rich subject matter is to be used in order that it may build up a many sided life,- presumably adult. A functional psychology is to be accepted by the teacher in order that he may teach so that the child may learn; this learning is to develop him step by step until he reaches adult life. The child's interests are to be considered, in fact they must be considered if any real education is to result, but the goal of the teacher is a life, most probably adult, which has avenues leading out to all the worth while knowledges and activities.

One of his reasons for developing a many-sided interest is that education has no right to hinder or limit in advance a man's future activity, and in consequence to narrow the attention of the child by keeping it on special studies.

The building up of the character of the child is to be the aim and end of education. That this is for the purpose of laying the foundation for the moral life of the adult seems quite clear from some of his ideas about discipline, for he advocates for the child a period of discipline, maintaining that it prevents the child from injuring himself and being unbearable to others. He holds that punishment is permissable, but it should be wise and kind, and its goal should be the repentance of the child who may thus be able to develop into a moral adult.

Herbart's great contributions to the doctrine of interest have already been stated, but some further emphasis may be of value. Compayre points out his great service in working out a complete system of education. "We cannot deny to him the merit of having constructed a complete system with relationships well planned, full of symetry, all the parts holding together, leaving no gaps. .... He has taken the pains to say over again in systematic form truths known to all the world."(17, Compayre, "Herbart & Education by Instruction." p 74)

His psychology, though not perfect is certainly a very great advance over the faculty psychology of Froebel and Pestalozzi. He, moreover, bases his education securely and soundly upon psychological principles. He shows that educational theories must be so founded. No great educator since his day has neglected the essential relationship between psychology and education.

He gives a new emphasis to the importance of the study of history and language, as well as literature. He considers Pestalozzi's emphasis upon the study of the physical world to be but a stepping stone to his own 'moral revelation of the world." While the former made arithmetic, geography, and natural science his chief care, he preferred to stress history, literature, and language.

Thus he clearly understood what he wanted subject matter to accomplish in the life of the child. He believed that knowledges are valuable only by reason of their intrinsic utility. Compayre says, "Herbart, who had a blind faith in his theories and systematic notions, is most valued by us for detail in special subjects and wealth of practical observations." (17, Compayre, "Herbart & Education by Instruction," p 83)

He also contends for a well trained teaching force. To this end he worked out in connection with his university a practice school where teachers were given very thorough training in theory and practice. He says. "'It is by meditation, it is by reflection and research, it is thru scientific study, that the educator must prepare his mind and heart to fit himself to conceive, feel, and judge rightly the particular incidents, the special cases which he must meet in his career as a teacher.'" (Ibid p 42.)

He also by his own example as well as by his theories, stressed an educational principle which is generally recognized today, that of individual differences. He traced out the characteristic differences between children and also those marking young men, with delicate insight. The question of physical temperament occupied him; he distinguished seven classes of temperament, four normal, and three abnormal.

His doctrine of interest is fundamental to education; it cannot be overlooked if education is to be anything but formal and divorced from the main currents of life and its interests.

By means of his educational system, he would elevate all humanity. The moral ideas would give birth by deduction to social ideas which would rule over nations and the world. Thus he foreshadowed how, by the end of a gradually expanding flood of instruction, a golden age would be established and spread step by step.

Thus he agreed with Froebel and Pestalozzi in his conception of the social significance of education, and foreshadowed one of John Dewey's profound convictions.

His emphasis upon character as the highest goal of education is of great value. He maintains. "Character consists of a man's desires, and he desires what he persistenly thinks about. Instruction, then, is the principle of the formation of character." (Ibid p 101) He also pointed out, as did Froebel, the connection between character and self-activity, "A maxim is efficacious only when it has been, so to speak, lived, when personal action has given it life." (Ibid p 102.) Again stressing one of Dewey's fundamental principles.

What would be the fate of our young friend, Jimmie, in the hands of Herbart? He certainly would not wander at will, following his own inclinations, as Rousseau would have permitted him, or be

allowed freedom to investigate and experiment as Froebel and Pestalozzi urged. He would have presented to him much more history and literature than sense objects or manual training tools. He might even be exposed to Homer at quite a young age.

He would not, though, be plunged headlong into this or any other subject as into an icy bath. The teacher would carefully prepare his mind for this as well as all other instruction. She would furnish him with ideas which he needed to make new subjects clear. Also she would help him to relate his ideas. If she were to teach him about a cow, she would also teach him about the green meadow where he fed, the brook from which he drank, the grain which furnished him winter food, and the stable which sheltered him as well as countless other things.

She would see that he had many particulars in order that his mind might do its work of organization properly,- so that he might have general notions full of rich content. Also she would not neglect his interests. If she taught him Homer,- his mind having been carefully prepared according to the law of apperception,- she would also teach him about the above mentioned cow. Not only so she would teach him about a wide number as well as variety of things,- the history of his own as well as of other countries, how to reckon the grocery bill, how to find his home city on the map, how to sing, how to speak and write correctly, and many, many other things. In fact so many things that, perhaps, he might conclude. "of the making of books, and of learning there is no end."

Yet in all she would especially try to develop his love for the beautiful, to teach him beautiful songs and poetry as well as show him lovely pictures, in order that he might form the proper moral judgments. All her instruction would be given with the purpose of helping Jimmie form a high moral character.

With regard to the scale, Herbart is evaluated as follows:-

	I. Theory & Practice.	II. Value of Point	III. Proportion Falling at This Point	IV. Product of II X III
1. Subject matter as center logical, complete development, Child not in picture at all, Fixed course of study.	(5 (5	10		
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25	12 13 25	625

3.	I. Theory & Practice,	II. Value of Point	III. Proportion Falling at This Point		IV. Product of II X III
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for child.	25 25	50	25 20	45	2250
4. Child as center - but definite aims for society health, worthy home membership, etc.	50 20	100	20 10	30	3000
5. Child as center - no restraints, teacher follows	25 25	50			
Total credit.					5875

Like his great predecessors whom we have studied, Herbart abandoned class #1 completely. Much as he valued subject matter, especially literature and history, it was not for its own sake primarily, but because he believed it was a sort of storehouse which contained goods of actual value for the present generation.

He is certainly due full credit under class #2 for reasons which must be apparent from the above study. Yet surely he labored mightily to adapt subject matter to the psychological nature of the child. We have seen how carefully and painstakingly he worked out his system. So earnest was his desire to reduce education to a carefully ordered system that he almost ran the risk of making it a static thing. His principle of apperception and insistence upon the paramount importance of interest,- direct and many-sided, seem to entitle him to much credit under class #3. He is given full credit, 25 points for theory, and, since he did not personally carry out his theory but left that to his practice teachers, 20 points for practice.

Since he really did occasionally rise to the height of the conception of the child as the center of education, as well as the extreme importance of his moral education, and education for society, Herbert is given credit under class #4, 20 points for theory, and, because his ideas ran ahead of his practice, 10 points for practice.

Chapter VI.
Horace Mann.

Not because he orginated any new theory of education or blazed the trail of any unique and valuable educational practice does Horace Mann deserve a place among those who have very greatly contributed to the cause of the freedom of childhood from the bondage of ignorance and education illy adapted to his needs. But rather because of his services as a statesman and public agitator of the cause of the child and his proper education.

Hinsdale says that the master forces in his life were: faith in God as infinitely wise, true and good; faith in man as indefinitely improvable; faith in knowledge and teaching as conducing directly and powerfully to man's improvability; and faith in his own duty to glorify God by ministering to the improvability of men. (26,"Hinsdale ,"Horace Mann & The Common-School Revival in the United States." p 103)

At a time when the schools of Massachusetts were quite inadequate in every way and very poorly organized, he was chosen to be the first secretary of the Board of Education. His labors in that position were varied and simply prodigious. He was profoundly impressed with the importance of his mission, "Should he (the commissioner of education) bring forth the germs of greatness and of happiness which Nature has scattered abroad, and expand them into maturity, ... should he be able to teach even a few of this generation how mind is a god over matter .... how the whole life depends upon the scale which we form of its relative values .... what a perpetuity of blessings he would confer."(Ibid p 112)

He saw very clearly the necessity of a state system of schools. "Where government has not established any system of education, the whole subject of course is left to individual enterprise, in such cases the majority will be left without any adequate means of instruction, hence the mass will grow up in ignorance." (27, Mann, "Annual Reports on Education"p256.

Some of the problems which he faced were non-attendance of children at school, poor condition of school buildings, and absence of supervision.

To awaken interest in the cause of education Mr Mann plunged almost immediately into a lecture tour of the state which he carried through despite many discouragements and lack ofcoorporation. Each year of his tenure he made a circuit of the state spending himself freely in his efforts to arouse and inform public needs regarding education.

After seven years he succeeded in introducing a system of teachers institutes into the state as a means of improving teaching, and thereafter constantly served as an efficient

lecturer. He also founded the first public normal school in 1838, securing a private gift of ten thousand dolars. He founded three normal schools eventually, at Framingham, Walpole, and Bridgewater. The course consisted in a review of the common branches from the teaching point of view, work in educational theories, and training in the practice schools under sypervision. He said, "I believe Normal Schools to be a new instrumentality in the advancement of the race. I believe that without them free schools themselves would be shorn of their strength and their healing power, and would at length become mere charity schools, and thus die out in fact and in form."(26, Hinsdale, "Horace Mann & The Common School Revival in the United States," p 160)

Another of his services as secretary was the establishment of school libraries throughout the state. Semi monthly he issued a significant educational publication, "The Common School Journal", spreading information concerning school improvement, school, law, and the proceedings of the state board. Much of the writing in this magazine was done by Mann himself.

Perhaps the most outstanding service which he rendered as Secretary was the issuing of his Annual Reports. They were written for the purpose of creating public opinion regarding public schools, and guiding public action. They were by law to give information concerning existing conditions and progress, and to discuss approved methods and organization. They fill a thousand pages. While practically every educational topic of importance at the time was dealt with, his suggestions as a whole maintained a definite point of view and a connected body of practical doctrine. They were read with great interest in all parts of the United States and even in Europe.

A few quotations from these reports will be given in order to give some idea of their nature and contents. "No richness of climate, no spontaneous productivity of soil, no facilities for commerce, no source of gold or of diamonds garnered in the treasure chambers of the earth, can confer even worldly property upon an uneducated nation." (27 Mann, "Annual Reports on Education," p562) "We know that all the wonders and glories which nature displays in her majestic course are only sources of superstition to those who have not learned her sublime laws."(Ibid p 566) "There is no earthly power but education which by supplying these wants can rescue the human race from sinking as much below the brute creation as they were designed to rise above it." (Ibid p 567.

"The great body of vices and crimes which now stain and torment the community may be dislodged and driven out from amongst us by such improvements in our present common school system as we are abundantly able to make."(Ibid p 569)

Mr Mann maintains that among the evils resulting from lack of education are: class distinctions, crime, inability to enjoy the better things of life, and poverty.

From these Reports as well as his other writings and speeches, his conception of the place of the child and of subject matter in education may be gathered. That he considered the child and his interests to be of superior importance to subject matter is clear from his words. 'If I can discover by what application of means a non-thinking, non-reflecting child can most surely be trained into a noble citizen, ready to contend for the right, ... my ministry has not been wholly in vain." (26, Hinsdale, "Horace Mann & The Common School Revival in the United States.' p 114) His faith in the educatability of the child he clearly expressed, "I have faith in the improvability of the race,- in their accelerating improvability." (Ibid p 112)

For subject matter in an of itself he had little use; rather he believed in the practical uses of studies. He placed small stress upon discipline and culture as such. Bookkeeping he preferred to algebra because the children could use it, and surveying to geometry for the same reason.

He saw the necessity of linking education with life. Ordinarily lessons are studied from textbooks mechanically, "The pupils rehearse from memory with suspicious fluency; or being asked for some useful application of their knowledge, some practical connection between that knowledge and the concerns of life, they are silent." (Mann, "Annual Reports on Educatinn" p342)

He advocated education which properly stimulates and informs the child, "Instead of any longer regarding the earth as a huge mass of dead matter .... its beautiful and boundless diversities of substance, gradually dawn forth, until at length they illuminate the whole soul." (Ibid p 342)

Like Pestalozzi, whose methods he studied in his foreign tour, he recognized the necessity of utilizing the senses of the child. "Improvements in the art of teaching have consisted in supplying interesting and useful instead of mischievous occupations for these senses as well as faculties. Experience has now proved that it is much easier to furnish profitable and delightful employment for all these powers than it is to stand over them with a rod and stifle their workings." (Ibid p 304)

He also recognized with Herbart the necessity of arousing the interest of the child. "Take a group of little children to a toy shop, and witness their outbursting eagerness and delight. To the exclusion of food and sleep, they will push their inquiries until shape, color, quality, use, and substance both external and internal of the objects are exhausted."(Ibid pp355, 356)

He evidently reached the conclusion which Pestalozzi had already arrived at that mental and manual activity often proceed together. "It is much easier to keep the eye and hand and mind at work together than it is to employ eigher one of them separately from the others. A child is bound to the teacher by many more cords, the more of his natural capacities the teacher can interest and employ." (27 Mann, "Annual Reports on Education." p 304)

His visit fo the schools of Prussia strengthened his b belief in the necessity of the training of the teacher, "The prussian teacher has no book, he needs none; he teaches from a full mind. He cumbers and darkens the subject with no technical phraseology. .... He connects the subject of the lesson with all kindred and collateral ones, and shows its relations to the every-day duties and business of life." (Ibid p 342) He was much impressed with the art of questioning which the German teacher possessed.

He spent much time in studying more improved methods of teaching during his foreign tour. The following are pedagogical improvements which he advocated: a new method of teaching reading; the use of supplemental material, the teaching of science; objective, illustrative, and oral teaching in the elementary schools, more rational and humane methods of disciplining, and less generalization and more concrete teaching.

The improved methods of teaching the various school subjects which he advocated are significant. He held that it was folly to teach the alphabet before teaching reading. In arithmetic the teacher should begin with object lessons, cubes, and so on; processes and rules should not be separated. The teaching of grammar should proceed during all the activities of the school. Children should learn to write and to draw together as each skill aids the other. In the teaching of geography the teacher should begin with the familiar; geography should be traced out into its connections with commerce, manufacturing and history. In the study of nature and of society, a good teacher may begin with any subject which is familar to the child and lead out indefinitely to broader and broader information.

Thus Mr Mann, though not primarily an educator, studied and embraced many of the advanced viewpoints of the great educators. He held subject matter to be subordinate do the interests of the child . He did not, however, reach the conception of education as a means of ministering to the present life and needs of the child, rather it was a preparation for complete living in adult life. "When such a student goes out into life, he carries as it were a plan or model of the world in his own mind. He cannot, therefore, pass either blindly or with the stupid gaze of the brute creation, by the great objects and processes of nature, but he has an intelligent discernment of their several existences and relations and their adaptation to the uses of mankind." (27 Mann, "Annual Reports on Educatinn." p 115)

Horace Mann's great contributions to the Doctrine of Interest must be already apparent. He assiduously devoted himself to the awakening of a public sentiment in favor of education. He maintained that all improvements in the school suppose and require a corresponding and simultaneous improvement in public sentiment. To this task he set himself with unlimited devotion and moral earnestness.

This arousing of public sentiment resulted in the reduction of expenditure for private schools from seventy-five to thirty-six percent, the raising of salaries of teachers sixty-two percent, the expansion of school attendance, and the establishment of fifty new high schools. He said, "I believe in the absolute right to an education of every human being that comes into the world." (1 Graves, "Great Educators of Three Centuries." p 263)

His agitation also resulted in the great improvement of the material equipment of schools,- well constructed school buildings properly ventilated, lighted, and heated.

He also advocated and did much to inaugurate in the schools, new methods of teaching, and better text books. Though not himself an educational theorist, he made practical and brought into use many of the contributions made to educational theory by others. He also set a precedent in education for other states. The rest of New England, following the example of Massachusetts, began to centralize its educational administration with a state board and secretary.

Horace Mann would surely have been a very great friend to Jimmie. Very likely Jimmie might have been one of the very large number of children in Massachusetts without any school privileges. He might have been bound out to some village shoe cobbler and compelled to work long hours fetching and carrying for his master, with no books to read, and nothing to think about but the small talk of his master's customers.

Perhaps he might have been permitted to attend a poorly heated and illy equipped school for a few months in the winter, getting chilblains on his feet because the floors were always cold, and an ache in his head because he had to memorize long passages from dry textbooks. Mann would have provided him with a school adequately equipped, taught by a teacher whose mind was kept alert by educational literature, and training in an institute. He would be encouraged to study the subjects which would be of most practical benefit to him, and provided with a school library which would open up new fields to him.

According to the scale, Mr Mann is evaluated as follows:-

	I. Theory & Practice	II. Value of Point	III. Proportion Falling at This Point	IV. Product of II & III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5 10	10	5 5	50
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25	12 13 25	625
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50	25 25 50	2500
4. Child as center - but definite aims for society health, worthy home membership, etc.	(50 (50	100	10 10 20	2000
5. Child as center - no restraints, teacher follows	(25 (25	50		
Total credits.				5175

Although he was not primarily an educator and his services were more in the nature of educating public sentiment in favor of the school and organizing the school system, he is evaluated on the basis of the theories which he accepted and the practice which he succeeded in getting the teachers in the state system to carry out.

Though he embraced theories that left class #1 behind, he could not completely escape from it, and so is given 5 points in that class. He accepted the principle that subject matter must be modified to meet the needs of the child, for which is given full credit, - 25 points- under class #2. In his foreign travels in which he studied the system of the German schools where Pestalozzi's principles were being carried out, he readily adopted educational theories and put them into practice so that it seems only fair to award him 50 credits under class #3.

He was certainly deeply impressed with the importance of the child himself and passionately pledged to his cause. Also he realized the importance of moral training and training the child for worthy membership in society. He is, therefore, given 20 credits, 10 for theory and 10 for practice under class #4.

Chapter VII.

Charles DeGarmo.

Charles DeGarmo is one of the greatest of the educators, who followed more or less closely the school of Herbart. He is like Herbart in his emphasis upon the necessity of a rich intellectual content of education to be acquired by the child in accordance with psychological laws, and by means of a carefully worked out system of educational method. He has, however, arrived at a more tenable functional psychology. Like his predecessor, he is a truly great educator who has made a distinctive and valuable contribution to the Doctrine of Interest.

While recognizing the supreme importance of the child over pure subject matter, he is firmly convinced that it must be intelligently utilized in the nourishment of the child's mental life and development. He says. "New knowledge must be imparted. Old predicates must be supplied with new subjects in which predicates are not already involved."(12, DeGarmo, "The Essentials of Method." p 38) Although the child upon entering the school has already a fund of knowledge,it is often extremely limited as well as erroneous. It is the function of the school to correct and enlarge this knowledge.

His contention of the necessity of a rich content of knowledge reminds one of Herbart's insistence upon a many-sided interest. Also, like Herbart he insists upon the imperative necessity of founding education upon psychology. The child's senses must not be neglected for they are the very first source of information; they must, however, be supplemented by the inner mental perceptions of the child.

He claims, therefore, that the starting point of knowledge is the individual notion, "The main point in this whole matter is that our knowledge starts with the individual notion whether it is of the things of sense,or their relations, or of the concrete embodiment of any purely intellectual or moral truth." (Ibid p 17) From the individual, the mind of the child advances to the general notion, of which the noun is the expression, for by it the knowledge of one person is conveyed to another. Nouns, however, differ in extent and in content, "Thus the term animal embraces a far greater number of individuals than the term quadruped, but at the same time there are fewer characteristics which are common to all animals than are common to all quadrupeds. The term cat is less than quadruped in extent, but is richer in content."(Ibid p 20) It is the function of education not only to widen extent, but also to enrich content.

With regard to the general notion he says, "Man's intelligence sees the general in the particular; it discerns

the common characteristics necessary to the notion of each individual, and by reflection forms a general conception. This fact, as we shall see, has great significance in education, and must never be forgotten,'(12, DeGarmo, "The Essentials of Method." p 22) This general notion applies not only to material, but also to intellectual objects.

The mind has specific laws of action which vitally affect the educative process. Very important among these is the law of apperception. 'Perception gives us the individual notion, conception or reflection the general. But to receive a new perception, or individual notion is not necessarily to understand it. This new perception must enter into certain relations to knowledge already in the possession of the mind before it can be assimilated or understood.'(Ibid p 25)

Thus he concludes, "We may say then, in general, that the amount of information conveyed by any given predication depends upon the wealth of content and the implied breadth of extent which the predicate term has for the learner. (Ibid p 28) Also, 'Apperception is the subsumption, under a predicate which is more complete in content and extent, and which is usually older and more familiar."(Ibid p 28)

Thus the law of apperception has various bearings upon the educative process. The new knowledge is not always subsumed under the old;;rather does the reverse order sometimes hold. 'In general the older and broader predicates give the main significance to the new subject, but the new also gives added significance to what was formerly known.' (Ibid p 29) Educational methods must, therefore, take into account this law of apperception if the pupil is to comprehend what is presented to him, as well as be interested in it.

Upon the basis of the psychological make-up of the child the teacher must use the methods of: '(1) the preparation of the child's mind for a rapid and effective assimilation of new knowledge, and (2) the presentation of the matter of instruction in such order and manner as will best conduce to the most effective assimilation." (Ibid p 32) Preparation seeks to recall former knowledge which gives meaning to that which is to be presented. If a lesson is to be assigned, the proper time for preparation is at the assignment, otherwise at the beginning of the lesson.

Mr. DeGarmo enumerates, in accordance with his usual habit of systematically working out methods, specific means of preparation. It must include a clear and attractive statement of the end to be attained in order to excite expectation and stimulate interest. The knowledge to be presented should be

given in a clear and connected sequence because this is in accordance with the laws of the mind. The preparation and the new lesson should not be intermingled; otherwise confusion and lack of interest will result. It should be complete and adequate so that tiresome explanations may not be needed later. The best method is a free interchange of question and answer between pupil and teacher, as then the pupil's interest is aroused.

Presentation is, of course, the important thing to which preparation has been leading up for facts must be presented to the child in a manner that will make them understood and thus readily assimilated. This necessitates attention to what De Garmo calls the "law of successive clearness". "The matter of instruction must not be presented in the mass but in small logically connected sections to each of which in succession the pupil should give his undivided attention. In this way, one by one individual notions are clearly perceived." (12 DeGarmo, "The Essentials of Method." p 41) Also. "The matter of instruction must, therefore, be presented in natural subdivisions thus giving resting-places which allow the mind to recover from its absorption in the individual and to fortify itself against distraction by bringing its knowledge into wholes." (Ibid p 42) The arrangement of the material in a natural series is also a most important matter as thus the law of association is observed, and the material more readily remembered.

The individual and the general notion are both very important in his conception of educational method. "If the drawing out process means anything it means the passing from the particular to the general, the transition through reflection from individual to general notions. If pupils perform this transition but imperfectly, however, they become lost in the individual."(Ibid p 47)

The individual notion is the basis of education, it must be so treated as to lead to the general notion which is one of the quests of knowledge. He says, "The necessity of proceeding from the individual through reflection to the general as an educative process has always been recognized by the great thinkers." (Ibid p 49)

Now, in order to proceed from the individual to the general notion there must be some common element which unites the two. This he illustrates by the syllogism, "When the process of apperception is analysed, we find that it begins with a tentative identification of the new object of perception with some well known object, through the mediation of the second figure of the syllogism; and that this first identification is verified or rejected by means of the first figure."(Ibid p 55) He thus maintains. "If the present view is correct, there must be constant progress from the individual to

the general at all stages of school life. There must also be a constant progress in the character of the general, from those primary stages .... up to the complete, scientifically perfect general notion." (12 DeGarmo, "The Essentials of Method." p 59)

The educative process must not, however, stop with the passage from the individual to the general notinn, but must learn how to again return to the individual notion for "It is the custom of our times largely to neglect the application of that which is learned; consequently the ever-repeated complaint that though our youth indeed know a great deal they can do but little, they possess indeed knowledge but little capacity and readiness to act, and upon leaving school the knowledge largely disappears." (Ibid p 67)

Therefore, only by the ability to pass as freely from the general to the individual as the opposite is education linked up with real life and the ability to solve its problems. 'It is needful to practice a wide application of general truths on account of the bearing of such practice upon all the affairs of life. The mind must be trained to distinguish the essential from the non-essential, the valid from the accidental or false at all times and under all circumstances. (Ibid p 69)

This return from the general to the individual notion is also valuable because it coordinates knowledge." To a greater or less degree all knowledge is related, all wisdom has a bearing upon every great enterprise of life. To bring the mind to the consciousness of this unity of knowledge is one of the great functions of the school"(Ibid p71)

With regard to DeGarmo's conception of education as a means of feeding and developing the child's present or adult life it is rather difficult to judge. Since in his treatment of the transition from the general to the individual notion he stresses the importance of application of what has been learned, it would seem that he held that education must accord with the child's present stage of development. It seems probable that he believes that education is only possible when it is suited to the child's age and progress, and that it will through ministering to present needs prepare him for adult life.

That Charles DeGarmo made unique and very real contributions to the Doctrine of Interest must certainly be seen even from the above brief resume of his outstanding educational conceptions. Like his great master, Herbart, as well as his more remote predecessor Pestalozzi, he insisted upon the necessity of basing educational methods upon a well thought out psychology. With Pestalozzi he recognized that the senses have a very real function to perform in education, but he made them merely the starting point. Perception was concerned not only with sense

objects, but also with ideas. That these ideas be clear cut and rich in content he insisted as had Herbart before him, for they were the tools of knowledge. Perception must, however, be followed by reflection and reasoning; new ideas must be presented in accordance with the law of apperception. The laws of association must be regarded and ideas presented in such a way as to enable them to function properly to the end that retention in memory would be insured.

Ideas must also be presented in accordance with the principle of the unity of knowledge so that a well knit body of knowledge might be the result. Thus to the child was to be imparted ideas which he could assimilate, reflect on, and build into a useful system of knowledge which should equip him for a useful and satisfying life.

Upon the foundation of this psychology DeGarmo constructed his educational methods with great precision and educational insight. Nothing was left to chance, a careful method for the preparation of the mind and the presentatinn of ideas was worked out in ways already outlined.

Along with most of the other great educators, DeGarmo believes that character is the end of education. He says that "All ethical instruction should proceed from individual cases of action involving moral content."(12 DeGarmo "The Essentials of Method." p 65)

DeGarmo would make Jimmie the object of most intense and accurate study; he would consider him of absolute superior importance to any kind of subject matter. Jimmie would not be presented with a heterogenous mass of lessons,- spelling, history, arithmetic, geography, reading, writing, and so on, and be watched with an eagle eye to see that he did not wiggle away from them or spend his youthful energy in whispering to his neighbor.

Rather the laws of his mental life would be carefully studied and only that subject matter presented to him which he could assimilate at his age and stage of development, and which would build up the body of knowledge which would be useful to him in the present as well as in the future. Educational methods would, moreover, be followed in the presentation of these ideas which would enlist the whole hearted interest and attention of Jimmie, leaving him no time or inclination to look out of the window or long for the closing bell,but actively engage him in acquiring a knowledge which he recognized to be worth while and really valuable to him.

Because DeGarmo worked out his theory with such constant attention to practice, both his theory and practice will

receive equal credit in the following rating:

	I. Theory & Practice	II. Value of Point	III. Proportion Falling at This Point		IV. Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10			
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25			
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50	25 25	50	2500
4. Child as center - but definite aims for society health, worthy home membership, etc.	(50 (50	100	25 25	50	5000
5. Child as center - no restraints, teacher follows	(25 (25	50			
Total credit.					7500

He leaves classes #1 and #2 completely behind and advances solidly to class #3and #4. In fact he builds up a more solid and unassailable view point of adapting subject matter to the needs of the child than any predecessor. His psychology is far sounder and in line with the best modern knowledge than that of any preceding educator. He is, therefore, given full credit under class #3.

Not only so, but he is also really committed to the view point of the child as the center. To him, however, subject matter is the food which nourishes the child, but it must be presented according to the best laws of psychology in order that the child may be able to digest and assimilate it. He is, therefore, given a credit of 50 points under class #4.

Chapter VIII.

Francis Wayland Parker.

From the standpoint of his own personality as well as of his educational achievements Francis Wayland Parker is an extremely fascinating figure. He, like Froebel had a misunderstood and difficult childhood. Yet neither of these great men was embittered or thwarted in their great work of emancipating children from a wrong and futile system of education. Mr Parker dearly loved children. "Children were neither rich nor poor, neither high nor low, they were all children alike to him. The leaven that has leavened the whole lump of the educational systems of the world is the care now bestowed upon childhood. ...."It was genuine affection rather than philosophy which stirred him to send the children into the fields and woods to live with nature, thereby inspiring them with a love for her, and infusing them with a spirit of freedom. It was love back of reason that led him to provide the children with wholesome and happy industry." (33 "Colonel Francis W. Parker" Proceedings of the N. E. A. p 404)

He saw the great possibilities of the child. "I purposed to carry out the plan that the great secret of human growth was to arouse the spiritual and higher in the human being, to drop all external incentives to selfishness, leave out ambition and emulation and all unnatural competition and feed the child with mental and moral nourishment. Make it love the work and love to help others for the sake of the work." (31, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker." p 134)

Colonel Parker also had a keen understanding of the importance of the individuality of each child. "It (the new education) believes that the child thus trained for character and such ability as belongs to it, will in the end be a far more valuable member of society than if molded into the imitation of any other man or fashioned to a machine for any special work." (30 Mayo, "The New Education and Colonel Parker, p 14) Perhaps this point of view arose from his own experience on the farm where he took advantage of the opportunity for self education. He says, "I knew every tree on the farm, and the grasses and flowers and berries. .... I studied them in a spontaneous way, all the butterflies, and insects and animals, and I also studied what little mineralogy there was."(Ibid.pp 113,114)

Thus he held that the aim of education was not the acquisition of subject matter, but the attainment of true knowledge. He believed that the thing taught is of less importance than the spirit and the method in which it is taught, the object being not to cram the mind with knowledge, but to implant the love of truth, and to train the faculties to find it by vital contact with nature, humanity, literature and life. He threw off the yoke of subject matter and insisted upon investing dead symbols with living content.

His conception of the necessity of a living subject matter is given in his own words. "I felt that there was only one study in the world, and that is the study of life, and all studies center in

that,-the study of the laws of life. .... The function of the human being is to take the truth that comes in from all the universe and give it back being created and ever creative. .... The supreme joy of being is to take in this life and give it out to others." (31, Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker." p 135)

He, therefore, became the champion of new methods of teaching. He was ever recognizing and inspiring originality of method in teachers. Even when their innovations were crude he would say 'Go ahead and work it out; now it is crude, but something good will come of it I am sure. We will stick together and remember if they go after you they must take me first." (33 Jackman "Colonel Francis W. Parker, Proceedings of the N. E. A. 1902 p 403)

Methods of teaching the school subjects advocated by him are explained in the following quotations. 'Spelling was learned by children in the same way that the human race learns to talk, by writing correctly and continuously. Language was learned as it always must be learned by using it correctly. Technical rules came in where needed. (34 "Francis Wayland Parker and His Work for Education." Report of the Committee of Education for 1902, p 241)

"My first experience of the genuine spontaneous attention was the sight of the first class at work with saw and plane. Boys and girls have worked together from the first to learn, and it would be difficult to say which have done the best work. "(Ibid p 255) He holds that by manual training muscles have been developed and coordinated, nerves steadied, minds disciplined, and hearts made happy through the feeling of usefulness.

In nature study it was discovered that mere laboratory work was not close enough to nature for the children to get a real nature education. Excursions were therefore made with their abundant opportunity for observation. The child was brought into loving contact with nature.

In geography he held that no text book could take the place of actual objects. 'We found marks of creation everywhere. .... Why should children wait for the last steps of their education before coming into contact with the richness and beauty of God's open book?" (Ibid p 256)

He believed that reading and number should be taught when use demanded. 'He rejected the idea that a set vocabulary must be acquired before reading begins. Also the notion that there must be the usual copy book training in the drawing of letters before the pupil could be allowed to write. (Ibid p 235)

He recognized the importance of the study of man and his activities, and held that the child should be allowed to study manufacturing plants so that he might come back to the school ready to study the history of industry. He could then appreciate the work of the great inventors. Children should thus know something of the

world in which they live.

During his trip abroad he studied Froebel, and accepted his principle of self activity, as well as of the socialization of school work. He recognized that any school activitity in which pupils and teachers alike engaged was a training in social living. He held that the school that was ideal was an ideal community. "We found that the feeling of responsibility, the dignity of belonging to a community, the desire to be personally recognized as of some use and even importance, were profound and controlling ethical stimuli for all grades of children from the kindergarten to the higher school. (34"Francis Wayland Parker and his Work for Education." Report of the Committee of Education for 1902, p 253)

As might be expected, Mr. Parker secured school discipline by love. Even in the early days when he had not worked out his aims he says. "I had a way of governing by getting the good will of my pupils. I seldom punished." (31 Griffin "School Days in the Fifties with Autobiographical Sketch of Francis Payland Parker," p 120)

It is not hard to believe that this pioneer educator arrived at the conception that it is the function of the school to educate the child in accordance with his present needs and interests. Mr. Mayo says that he held that it was the function of instruction to adapt itself to the child's needs. Parker's educational conception "insists on skilled supertision and instruction, working with all the freedom possible in this task of development, free to adopt, to change, to revise methods of instruction with growing experience, and bound by no vows of obedience to any philosophy which does not keep open doors and windows for new revelations out of the wonderland of childhood." (30 Mayo, "The New Education and Colonel Parker." p 14)

Again in enunciating his theory of correlation he also emphasizes the central place of the child's present needs. "Through a careful and judicious selection of the mental nourishment actually needed by the pupil at a given time, he believed that the separate subjects of study, so called, would prove organically related, and also that a just recognition of their natural interreltationships would lead to a great economy of effort, and to an immense saving of time on the program." (31 Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker." p 135)

He often stresses the importance of the interrelation of all branches of knowledge. "All forms of expression, and all the so-called branches, when seen under the light of the one central thought of unity are all one, and one cannot be known alone, and if all is known each study is only known as it is known in its relation to the great center, to the unit." (Ibid p 135)

This conception seems to align him with Herbart, but he expressly repudiated this classification. His theory of

concentration also differed widely from that of Ziller and Reine, there being no single center of studies; the center which he consistently adopted was the child. Because of his empirical method he may be said to be a follower of the great Pestalozzi; he constantly tried to adapt education to the child rather than the reverse. He, however, advanced much further than Pestalozzi.

From this brief review his contributions to the doctrine of interest are seen to be outstanding. He was not only warmly attached to the interests of the child, but his personality was also fresh, vivid, and opposed to dead conventionality. He threw himself into his teaching with a real passion. 'I can say that all my life I have had a perfect passion for teaching school, and I never wavered in it in my life, and never desired to change. .... I love to see things grow, and if I could tell any secret of my life, it is the intense desire to see growth and improvement in human beings.' (31 Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker.' p 133)

Of the Quincy effort he states, "There never was a Quincy method or a Quincy system unless we agree to call the Quincy method a spirit of study, and the Quincy system one of everlasting change." (34 'Francis Wayland Parker and His Work for Education, "Report of Committee of Education for 1902, p 240)

He was constantly plying his teachers with such questions as "'Is it quantity or quality you are after?' 'Are you trying to cover ground or develop character?' 'What have you to think about except the present needs of the growing child?'" (Ibid p 236)

Thus the uniqueness of his school system appeared in his apparent lack of system. Teachers worked originally constantly endeavoring to find the best. Pupils promoted themselves, there being no system of marks, the child's own work determining their advance. It is thus no marvel that the following tribute is paid to his memory. "To him more than to any other man is due the fact that the schools of the whole country have been decrystallized and imbued with sweeter and higher ideals, and therefore raised to a higher standard of efficiency and accomplishment." (32 Fitzpatrick, 'Francis Wayland Parker," Educational Review of June 1902, p 27.)

He was not, however, conscious of rendering any unique educational service. 'I never thought for an instant that I was going to do anything superior to anything else that had been done in the schools; I simply wanted to carry out my plans. .... I knew from what I had read and from what I had seen that reading and writing and numbers could be taught in a better way than the old fashioned way.' (31 Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker," p 131) When, however, such original school methods aroused oposition, he went abroad to study in the University of Berlin, and to visit the schools in Holland, Switzerland, Italy and France

His services in the socialization of the school have already been referred to. When he took a notoriously hard school in southern Illinois, he says, "I told them that my idea of a good school was to have a first class time, and that in order to have a good time they must all take hold and work together."(31 Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker,' p 121)

His position is more clearly stated in the following quotation. "The social factor in the school is the greatest factor of all; it stands higher than subjects of learning, than methods of teaching, than the teacher himself. That which children learn from each other in play or work, though the work be drudgery is the highest that is ever learned. (34. 'Francis Wayland Parker and His Work for Education" Report of Committee of Education for 1 902, p 233)

He was a champion of democracy and its educational principles. Hence the child must be self governed. This position brought upon him derision, yet he did not surrender it. He impressed upon each child his responsibility toward the school.

The conception of the relationship between the child and life has already been stressed. He tried to establish in school the normal relations under which people live. Hence his earnest endeavor to identify the work of the school with the interest of the home. He tried to bring into use all that the pupils had ever learned in school, city, or farm.

In the training of teachers he rendered great service. "I began the Normal School and the plan of training teachers by practice work. I had one teacher in each room, and then took the pupils from the High School and trained them to teach. (.31 Griffin, "School Days in the Fifties with Autobiographical Sketch of Francis Wayland Parker." p126)

Under Mr Parker and his methods Jimmie would have a happy sense of being understood. Lessons would not be imposed upon him regardless of his abilities or interests; rather he and his possible development would be the criteria by which subject matter would be judged. He would not have a teacher who was by profession a tailor or church sexton, and incidentally a teacher, but one who devoted his life and the best powers of his intellect to learn through the study of Jimmie and his needs as well as of the best educators, how he should be taught.

The school subjects would not be taught predominantly by the old drill method,--thereby running the risk of winning only half of Jimmie's attention, the rest being, perhaps, devoted towriting notes to his chums or planning what he would do when he got outside the school door,-but by the methods discussed above. The teacher would not rely upon the rod or sarcastic words and public humiliation to keep Jimmie in order, but upon securing his whole hearted attention so that there would be none left for objectionable extra-curriculum activities. Mr Parker himself, moreover, would be able to secure Jimmie's honest liking and good will.

In short, under Colonel Parker all of Jimmie's interests and capacities would be completely enlisted by a teacher who was constantly studying him and his present as well as future life needs and ever adapting her subject matter and methods to him in order to help him to take his place among his fellows and render the very best contribution of which he was capable.

With reference to the scale, Colonel Parker is evaluated as follows:-

	I. Theory & Practice.	II. Value of Point	III. Proportion Falling at This Point.		Iv. Product of II X III.
1. Subject matter as center logical, complete development, Child not in picture at all. Fixed course of study.	5 5	10			
2. Subject matter the aim but modified to suit child's interest.	12 13	25			
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	25 25	50	8 7	15	750
4. Child as center - but definite aims for society health, worthy home membership, etc.	50 50	100	37 38	75	7500
5. Child as center - no restraints, teacher follows	25 25	50	5 5	10	500
Total credit.					8750

His rating is predominantly under class #4 because of the great enthusiasm with which he espoused the cause of the child as the center of the educational program: the child as a social being who in the school, as well as in life developed best in cooperation with his fellows. His passion was to educate the child in accordance with his present life needs, and to prepare for adult life by fully equipping the child to meet life at the level which he had attained.

He did not spurn subject matter in anything the fashion that Rousseau did, rather he subordinated it almost completely to the child. Because of attention to the adaptation of subject matter to the needs of the child a few points, 15, are given under class #3.

Also, because he occasionally seems to conceive of the unrestrained child as being the sole center of education, 10 points are given him under class #5. In the main however, both his educational theory and practice, though original and progressive, are predominantly sane and well balanced.

Chapter IX.

John Dewey.

Probably the best known and most widely influential present day champion of the child and his supreme importance in the field of education is John Dewey. His brilliant mind leading him to successfully grapple with philosophy and psychology and their problems, coupled with his extremely practical bent causing him to test his theories in actual practice make him a commanding figure. Though neither his philosophical nor his educational conceptions are universally, and completely accepted, they demand the most careful study.

He condemns the old type of education because of its massing of children together, its passivity, and its uniformity of curriculum and method. "It may be summed up by saying the center of gravity is outside the child. .... On that basis there is not much to be said about the life of the child." (7 Dewey, "The School and Society" p 51) He holds that there are three things about the old-fashioned schools which must be changed: 1. subject matter, 2, the way the teacher handles it, 3, the way the pupils handle it. He emphasizes the position of the child in modern education, "Now the change which is coming into our education is the shifting of the center of gravity. It is a change and revolution not unlike that introduced by Copernicus when the astronomical center shifted from the earth to the sun. In this case the child becomes the center about which the appliances of education revolve; he is the center about which they are organized. (Ibid p 51)

Education, he maintains, must change because social conditions are changing. Formerly the child got training in his home where he worked with his parents as well as in the smaller simpler community, which he no longer receives. At the present time there are new problems which demand a readjustment of education. They are: the necessity for individual earning of a living,the widened social influence of the work of each individual, industrial methods which depend upon the knowledge of natural and social science.

Educational readjustment therefore demands not more information, but rather the formation of attitudes and interests, and a vital connection between the school and life activities. Because these needs are not met, Mr Dewey criticises the present system of education. "It is our present education which is highly specialized, one-sided, and narrow. It is an education dominated almost entirely by the medieval conception of learning. It is something which appeals for the most part simply to the intellectual aspect of our natures .... not to our impulses, and tendencies to make, to do, to create, to produce whether in the form of utility or of art. "(Ibid p 41)

Subject matter is of value only as it ministers to the needs of the child; it must be connected with his existing capabilities in such a way as to produce active response. Its function is to supply the proper environment which will stimulate the child. There is a danger,

therefore, that it will lose connection with the child's life and be an end rather than a means; also that it be mechanically learned so that it will not enter into the life of the child.

Only an education that appeals to the interest of the child can be effective. "If we were to conceive our educational end and aim in a less exclusive way, if we were to introduce into the educational process the activities which appeal to those whose dominant interest is to do and to make, we should find the hold of the school upon its members to be more vital, more prolonged, containing more culture.' (7 Dewey, "The School and Society." p 43)

The psychological nature of interest insures its effectiveness, for it is dynamic, it is objective, and it is personal.

In his home the child engages in activities which are meaningful to him; therefore education must take its cue from these activities. "The school does systematically and in a large, intelligent, and competent way what for various reasons can be done in most households only in a comparatively meagre and haphazard manner." (Ibid p 52) It is the business of the school to organize around the activities of the child. "The question of education is the question of taking hold of his activities, of giving them direction. Through direction, through organized use they attain to valuable results instead of scattering or being left to merely impulsive direction." (Ibid pp 53,54)

In order to empirically test his theories, Dr. Dewey established an experimental school in connection with the university. There he set himself to solve such problems as the following: 'What can be done, and how can it be done to bring the school into closer relationship with the home? (Ibid p 116) "How can instruction in these formal symbolic branches,- the mastering of the ability to read, write, and use figures intelligently,- be carried on with every day occupations as their background, and in definite relation to other studies of more inherent content, and be carried on in such a way that the child shall feel their necessity through their connection with subjects which appeal to him on their own account? (Ibid p 118)

The means used to answer these questions were,- shop work with wood and tools, cooking, and work with textiles,- sewing and weaving. He says, "The child gets the largest part of his acquisitions through his bodily activities until he learns to work systematically with the intellect." (Ibid p 121)

The activities of the school were chosen on the following basis: "Because they represent some of the most important activities of the every day outside world,- the question of living under shelter, of daily food and clothing, of the home, and of exchange of goods." (Ibid p 122)

Dr. Dewey, no less than Herbart and De Garmo recognizes the importance of an adequate educational psychology. He says, "All conduct springs ultimately and radically out of native instincts

and impulses. We must know what these instincts and impulses are, and what they are at each particular stage of the child's development in order to know what to appeal to and what to build upon. .... We must study the child, in other words to get our indications, our symptoms, our suggestions." (8 Dewey 'Moral Principles in Education'pp 47,48)

He recognizes the necessity of knowing the psychological implications of the school subjects as geography, history, and so on. It is especially essential to recognize the psychological basis of moral education. "We need to see that moral principles are not arbitrary that they are not 'transcendental'; that the term 'moral' does not designate a special region or portion of life. We need to translate the moral into the conditions and forces of our community life, and into the impulses and habits of the individual." (Ibid p 58)

Though his method differs so widely from that of Herbart, he recognizes with him the necessity of many-sided interest leading to a rich life. 'A barren course of study, that is to say a meagre and narrow field of school activities, cannot possibly lend itself to the development of a vital social spirit or to methods that appeal to sympathy and cooperation instead of to absorption, exclusiveness , and competition."(Ibid p 31)

He measures subject matter by its ability to fit the child for complete social living. Also he recognizes the moral implications of subject matter and the manner of its presentation "when a study is taught as a mode of understanding social life, it has positive ethical import. What the normal child continuously needs is not so much isolated moral lessons upon the importance of truthfulness, honesty, ... as the formation of habits of social imagination and conception.' (Ibid p 40)

He, however, objects to the usual distinction between moral ideas and so-called secular ideas. 'Moral ideas are ideas of any sort whatsoever which take effect in conduct and improve it. .... There is nothing in the nature of ideas about honesty or purity or kindness which automatically transmutes such ideas into good character or good conduct.' (Ibid p 1)

Moral ideas cannot be isolated in the conscious life of the child. 'The child is an organic whole, intellectually, socially, and morally as well as physically. We must take the child as a member of society in the broadest sense and demand for and from the schools whatever is necessary to enable the child intelligently to recognize all his social relations and take his part in sustaining them.' (Ibid p 8,9)

Dr. Dewey maintains that real effectual moral training is given by the school community which he advocates, 'Moreover the society of which the child is to be a member is, in the United States a democratic and progressive society. The child must be educated for leadership as well as for obedience. '(Ibid p 10)

It is impossible for Dewey to think of education apart from life, it is all one with the life process. He says "Education is all one with growing; it has no end beyond itself. The criterion of the value of school education is the extent to which it creates a desire for continued growth and supplies the means for making the desire effective in fact.'(9 Dewey "Democracy and Education p 62) Again, 'Education is that reconstruction or reorganization of experience which adds to the meaning of experience and which increases ability to direct the course of subsequent experience.' (Ibid pp 89,90) The result of education is the capacity for further education.

Over and over again he emphasizes this principle of growth; he does not, however, conceive of it as merely an inner striving toward a distant goal, but as inherent in the life process which is the thing of supreme importande. 'Life is the great thing after all; the life of the child at its time and in its measure, no less than the life of the adult. Strange would it be indeed if intelligent and serious attention to what the child now needs and is capable of in the way of a rich, valuable, and expanded life should somehow conflict with the needs and possibilities of later adult life." (7 Dewey, 'The School and Society' p 71)

Thus he counsels that the child be taught what is of use to him as a child, for that will take all his time. The real teachers are experience and emotion; the child should remain in complete ignorance of things beyond his grasp.

Because the traditional education does not meet this test he criticizes it. He maintains that emphasis upon preparation for a remote future is all wrong. "Who can reckon up the loss of moral power that arises from the constant impression that nothing is worth doing in itself, but only as a preparation for something else, which in turn is only a getting ready for some genuinely serious end beyond."(8 Dewey 'Moral Principles in Education" pp 25,26)

Yet the child will himself evidence an interest in his own future, and delight in imitating the activity of adults in his play life. Such activity is entirely legitimate, for it gives him real training in social and useful enterprises in which he is genuinely interested. Thus he would not neglect adult activities, for they are actually connected with the child's life and interest. He says, "The child ought to have the same motives for doing right and to be judged by the same standards in the school as the adult in the wider social life to which he belongs."(Ibid p 17)

Dewey clearly offers some of the richest contributions to the doctrine of interest. Vitality and life pulsate through all his educational theory and practice. He is, moreover, very consistent in his educational views. Unlike the great Rousseau who could rise occasionally to heights of educational vision but was entirely unable to hold to any one point of view much less tie his theory up to a workable practice, Dewey is an educational seer capable of receiving exalted visions, but also a thorough going thinker able

to maintain one point of view and to work it out into a careful and well developed practice. He consistently exalts the life and interest of the child above dead subject matter. In fact he has a perfect passion for life and growth; they are the conditions of the mental and moral well being of the child. They urge him on to the realization of his highest and best possibilities. Thus anything that would stifle or impede life and growth is to Dewey anathema. For this reason he reacts against the formal type of education which would repress the vital expanding powers of the child and clamp down upon him a stiff school regime of unquestioning obedience and docile absorption of a subject matter selected by an older generation entirely unacquainted with the life and interests of the child.

Education, moreover, must not be alienated from the present throbbing and real interests of the child. Rather the educator should study the activities of the child in his own home and from them take his cue. Not indeed copying them slavishly but comprehending their principles and providing the child with activities which do not violate those principles. He says, 'The first years of learning proceed rapidly before the children go to school, because that learning is so closely related with the motives that are furnished by their own powers and the needs that are dictated by their own conditions.

The child is, moreover, a social being who has his place in society right now, and in its attendant interests and responsibilities; education must recognize these facts and work out subject matter and methods accordingly.

The American child is placed in a society which is a democracy and for that reason must be fitted to participate in such a form of government. Thus his freedom and iniative must be developed in the school.

He clearly sees, as did Froebel, that the child is an active being, and while departing from Froebel's symbolical teaching which arose from an idealistic philosophy, he provides for the utilization and training of the child's activity. He emphasizes manual training saying, 'Manual training is more than manual, it is more than intellectual, in the hand of any good teacher it lends itself easily .... to the development of social habits.' (8 Dewey, 'Moral Principles in Education.' p 26) He also holds that it is valuable because of its social significance for it represents activities by which community life is kept going. In this connection he scores the ordinary schools saying that they cannot provide an opportunity for cooperative effort toward a common aim and so cannot train for social living.

Play is another means of encouraging self activity in the child. It is the function of the school to provide for play that will further the acquisition of valuable knowledge and skills, and call forth the right attitudes.

Dewey abhors any educational theory or practice which tends to become formal and thus to stifle life and growth. He, therefore, uses the empirical method in his educational theories and practice. In this he follows the great Pestalozzi, but for his point of departure he has a much sounder educational psychology as well as educational method. Yet who shall say that future educators will not depart from his theories as markedly as he has from Pestalozzi's? Indeed, in view of his passion for life and growth, he would probably desire that they should.

Under Dewey Jimmie would surely feel that he had come into his own. Released from a dull, lifeless discipline which dogged his every step in school, he would have a chance to show what he truly was so that the teacher might fit her methods to him rather than the reverse. He would not be marched into a line and treated as a mere object to be disposed of, rather than as an individual. Also, Oh joy! he would not be compelled to sit still at his desk poring over a book from which a lesson had been assigned. Rather he would be encouraged to initiate some project as the making of a cart which he wanted to use when he sold papers. He would then have to plan the project carefully, asking advise of the teacher as he needed it, carrying it out himself, again asking the teacher's assistance when it was necessary, and finally deciding whether he had done a good job in making the cart, and how he could do it better next time.

He would also participate in projects which affected his school fellows as well as himself, do his part in planning and executing a public program or some other mutually desirable and beneficial activity. In all these projects he would not be allowed to do simply as he pleased; the teacher would judge whether or not he had chosen activities which would really benefit him. Also it would be understood that he must cooperate with other members of the school in mutually worth while activities.

His moral development would not be neglected. The best in architecture, music, sculpture, and pictures would be accessible to him. Moreover his training in ability to discriminate between what was truly worthful would be constantly going on. His emotional and volitional expressions would not be overlooked, and the teacher would encourage these responses in all his activities. He would be putting forth every effort to accomplish purposes which did not conflict with those of his fellows, and which he recognized as leading to ends worthful to him at his age and stage of development.

According to the scale, Dewey is classified as follows:-

	I. Theory & Practice.	II. Value of Point.	III. Proportion Falling at This Point.	IV. Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10		
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25		
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50		
4. Child as center, but definite aims for society health, worthy home membership, etc.	(50 (50	100	50 50 100	10,000
5. Child as center, - no restraints, teacher follows.	(25 (25	50		
Total credit.				10,000

It is quite apparent that he departs almost completely from classes #1, #2, and #3, maintaining quite consistently in both theory and practice the child centered program of education. He had unusual opportunities to carry his theories into practice through the practice schools which he established, therefore, he is given full credit under class #4, 100 points.

Chapter X..
Other Modern Educators.
James F. Hosic, and Sara E. Chase.

Although John Dewey is probably the most outstanding of the modern educators, and his contributions to the doctrine of interest the most influential, there are yet a not inconsiderable number of others whose services are neither insignificant nor lacking in real constructive value. They will, therefore, be treated more briefly than the educators already studied, in order that their unique significance and value in an educational system that places the child in the position of most importance may be discovered.

James F. Hosic, and Sara E. Chase have stated their position in their book, "A Brief Guide to the Project Method." They, of course, reject the pure subject matter as well as the functional subject matter view points and hold that the child his personality and immediate interests are things of chief concern. The educational method which they believe is best fitted to such a conception is the project.

Not only because of their valuable work in the field of the project, but also because it is such a widely accepted method, a rather full treatment will be given of their position. They define the project method as follows: "A way of living by your own wits and in cooperation with others; a way of learning,- almost the way of learning. .... a way of teaching, of conducting the educativeprocess."(18 Hosic and Chase. "A Brief Guide to the Project Method." p 15)

Theydistinguish between the project and other methods saying that they are procedures to be employed while it is a principle to be applied because it is more inclusive than they and more far reaching in its possibilities. It brings about desirable changes in human beings through the pursuit of ends and is a method of living, since real life is full of projects. They give a list of the different types and their purposes: Type 1,purpose to embody some idea in external form, as building a boat; Type 2, purpose to enjoy, appreciating a picture, story, music, and so on; Type 3, purpose to straightem out some intellectual difficulty, solve some problem; Type 4, purpose to attain some skill.

The project method is not, however, to be rushed into in a haphazard fashion; there are certain prerequisites to its successful execution. A clear idea of what the children should learn; a teacher capable of using the method; subject matter that is applicable; building equipment that is favorable, supervision that is most efficient, and measuring and testing that is efficient.

The important thing about the project is that it calls forth the purposeful activity of the child; the teacher may suggest, but the pupils must wholeheartedly adopt the project. The teacher is not at all a negligible factor in the project method, though his share is very different from that of the formal teacher. His role varies, "He is leader, chairman, interlocutor, coach, umpire, taskmaster,

authority, judge, adviser, sympathetic listener, chief performer, examiner, guide, or friend as the occasion may require.' (18 Hosic and Chase. 'A Brief Guide to the Project Method.' p 28) He must be alert and wise in the choice of his subjects and may show much skill in siezing upon current happenings such as the circus in town, the need for warm lunches in school, and so on. The teacher must prepare the children' minds for somthing they are to do; he may suggest, but the pupils themselves, as already pointed out, must be the ones to do the purposing and executing. It must be a common purpose and accepted by the children as their own responsibility.

Also the teacher must allow the children to plan for themselves, only offering his suggestions and warning of difficulties. During the carrying out of the activity the teacher must keep the purpose to the fore, try to avoid wasting of energy, and see that all contribute. It will be the teacher's duty to see that the children pick out the important facts and concentrate upon them and get the education that they are capable of imparting. Also the teacher must see that the most valuable experiences are chosen, that is those which minister to the present life of the child and which freely exercise his abilities.

There are certain marks which indicate the success of a project,- the absence of unnecessary strain and worry on the part of the child, the furtherance of unity of experience and less pigeonholing of knowledge, and the forming of the habit of carrying through an activity that has been started.

There are a large variety of the application of the project possible. It may be a valuable aid to efficient study, avoiding the waste of time; also it may serve to motivate school tasks. One of the most pressing problems is to make school tasks meaningful and worth while. 'Accepting whole-hearted purposing as central to the doctrine, they must inevitably seek to establish conditions most favorable to it.' (Ibid p 78)

Clubs may be formed, being organized about the various school subjects as mathematics, history, Latin, chemistry, and so on, whose aim it is to impart the various knowledges and skills. Also the extra curriculum activities offer a rich field for the project method. 'The school play,, the school newspaper, athletic and other clubs, auditorium programs, playground organizations, community service. .... All of these offer the opportunity primarily for doing things rather than learning how others have done them.'(Ibid p 82)

Yet the project method must be used intelligently for there are dangers to be avoided. The teacher must still be in control. "Since he relies but little on a cut-and-dried routine, the teacher must plan exceedingly well. .... He plans in order that his pupils may plan.' (Ibid p 87) Again. 'The project teacher leads the pupils to plan to do the things they ought to do."(Ibid p 88)

There is real danger in using the socialized recitation when children have not enough information or skill or subject matter. There is also the danger of overlooking the fact that transfer of training does not take place readily, and therefore a wide range of activities

must be provided.

Their position regarding education as a preparation for adult life or as ministering to the child's immediate life is stated as follows; "The project method means providing opportunity for children to engage in living, in satisfying worth-while enterprises,-worth-while for *them;* it means guiding and assisting them to *participate* in these enterprises so that they may reap to the full the possible benefits." (18, Hosic and Chase, "A Brief Guide to the Project Method." p 7)

Under Mr Hosic, and Miss Chase Jimmie would find that education was not a stupid affair to be somehow endured, but rather quite an adventure in which he was the chief hero. Yet he would not be allowed to wilfully dominate his fellows and his teachers. Rather he would be permited to choose among a number of worth while activities those which appealed most to him and offered the greatest opportunity for his information and development. When his purpose was thus fully aroused, he would be expected to put forth every effort of which he was capable to carry out the project which seemed to him valuable. He might call on his teacher for help, but he would not be allowed to give up an enterprise which he had once started. His projects would not all be individual, but more often in cooperation with the group.

Mr. Hosic, and Miss Chase are rated as follows:-

	I. Theory & Practice.	II. Value of Point	III. Proportion Falling at This Point	Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10		
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25		
3. Aim as in #2, but further modified by adaptation to local appeqls and other attractive approaches for the child.	(25 (25	50		
4. Child as center - but definite aims for society, health, worthy home membership, etc.	(50 (50	100	45 45 90	9000
5. Child as center - no restraints, teacher follows.	(25 (25	50	5 5 10	500
Total credit.				9500

It must be quite apparent why Mr. Hosic and Miss Chase are given a credit of 90 points under class #4; they very clearly put the child in the foreground. In justification of credits under #5, a quotation is given. "Wherever the learner's purposes may point, there may his heart go also..... It matters not so long as his mind is set toward his goal." (18. "Brief Guide to Project Method."p 80)

Ellsworth Collings.

Ellsworth Collings has rendered a very valuable service to the cause of a child-centered education by carrying out an actual experiment to empirically test the merits of this newer educational conception as compared with the old subject matter conception.

Along with Dewey he places great stress upon the life and growth of the child. He conceives the function of education to be; "To provide an environment that furthers the continuous growing of its pupils,- an environment that affords them practice in the selection and successful realization of purposes." (6 Collings, 'An Experiment with a Project Curriculum.' p 321)

His experiment was carried out primarily to ascertain whether or not the curriculum of the school can be selected from the purposes of the children. He says, 'The essence of the curriculum as it is used in this experiment is the purposes of boys and girls in real life. As such it is necessarily as broad as life itself. .... In this sense the curriculum is a living thing, child experiencing.' (Ibid p VIII)

The subject matter of the traditional school subjects was taught only when they contributed to the realization of the purposes of the boys and girls, for he holds. 'The purpose is primary and dominates in defining the activity that is to eventuate in its realization.' (Ibid p 227)

The ideas underlying Mr. Collings' theory of education are: 1. The pupils must purpose what they do; 2 Actual learning is never single,- there are concomitant learnings which chiefly build attitudes toward life interests,; 3 All learning encouraged by the school is so encouraged because it is needed <u>here and now</u> in order to carry on better the enterprise now under way; 4. The curriculum is a series of guided experiences so related that what is learned in one serves to elevate and enrich the subsequent stream of experience.

Yet purposes are not to be trivial or selected at random; they must genuinely grip the boys and girls, be possible of realization, and lead to other worth while purposes. The principles for carrying out the projects of the experimental school are so similar to those used by Mr. Hosic and Miss Chase that they will not be repeated.

In order to carry out the experiment two different types of school were established,- the experimental whose curriculum was based upon the life purposes, and the control curriculum patterned after the traditional. The intelligence level, chronological age, number of years in school, and number of years spent in the schools of experiment were approximately equivalent in both schools.

The projects carried on in the experimental school were play, excursion, story, and hand work. The play projects 'represent those

experiences in which the purpose is to engage in such group activities as games, folk dancing, dramatization, or social parties."(6 Collings, "An Experiment with a Project Curriculum" p 48) The story projects which 'Include purposes to enjoy the story in its various forms,- oral, song, picture, phonograph, or piano.' (Ibid p 48) The excursion projects which "Involve purposeful study of problems connected with environments and actifities of people." (Ibid p 48) and hand projects which "represent purposes to express ideas in concrete form,to make a rabbit trap, to prepare cocoa for the school luncheon , or to grow cantaloupes."(Ibid p 48) Projects were thus classified because they indicate the kind of activities which children normally engage in.

In order that the actual results of the experiment may be clearly apparent they have been tabluated as follows:

Summary of changes in common facts and skills.

	Experimental School.	Control School.
Penmanship.	10.3	8.5
Spelling	56.2	53.8
Reading	38.3	32.7
Addition	21.0	17;6
Subtraction	20.2	12.9
Multiplication	13.3	11.1
Division	14.1	13.1
Geography	85.8	37.0
American History	11.8	6.0
Composition	10.8	7.4

Summary of attitudes of boys and girls.

Enrollment	25 %	4
Pupils attending every day	93	5
Decrease in tardiness	92	6
" " truancy	25	7
" " corporal punishment	56	15
Attendance thru term	76	2
Graduating from 8th grade	35	10
8th Grade gr. enter high	85	8

Summary of attitudes of parents.

Visiting school	90 %	5
Attend annual meeting	71	12
Votes for maximum tchr.levy	78	30
" for xtra schl. improve.	82	25
Using schl for farm problems	62	18
Decrease in violation of compulsory school law	16	4
Visiting schl on spec. program	82	15
Using schl. apparatus	58	13
Votes to establish high schl.	91	8

Summary of changes in donduct of boys and girls.

	Experimental	Control.
Home leisure reading	85 %	5
Study of music in home	39	3
Participation in community	100	1
" in social parties at home	66	13
Project work during vacation	69	6
Common health habits at home	61	3
Decrease in disease	35	25
Games at home	84	30

Summary of changes in conduct of parents.

Reading Farm Journal	96 %	3
" Daily Newspaper	56	6
Attend. night community meeting	75	25
Participation in community fair	91	1
Testing seed corn	48	21
" milk	58	17
Thorobred poultry	31	7
Decrease in disease	20	4

Mr. Collings' position regarding education as a means of ministering to the present life of the child has already been given, but one more quotation will be presented; 'Life is the great thing after all; the life of the child at its time and in its measure no less than the life of the adult. Childhood is not a vestibule through which we pass to adulthood.' (6 Collings, "An Experiment with a Project Curriculum." p VII)

In order to show how completely Jimmie's needs and interests would be considered by Mr. Collings, a brief account of two projects in which we will suppose Jimmie would happily participate will be given.

One day Jimmie observed that Mrs. Murphy planted sun flowers along the rear of her garden, and he wondered why they should be relegated to such a position. When he reported his discovery to the other pupils, they wondered too. They, therefore, decided to visit Mrs. Murphy and find out. Mrs. Murphy explained that they shaded her cucumbers, that the chickens ate the seed. She gave the children seeds. Each pupil made a record of the visit, described the sunflower and its uses, and decided what future use they would make of the sunflower.

Again Jimmie's boon companion, Tom, Smith, did not come to school one day. Upon inquiry it was found that he was ill with typhoid fever. Not only so, but the other Smith children had been ill with typhoid fever for several successive years. Jimmie as well as the other school children decided that it would be worth while to find out why typhoid fever was such a frequent occurrence in the Smith family. They concluded to visit the home, and a committee was made up to decide what they would look for in their visit. After the visit had been made they canvassed the different

possibilities and reached the conclusion that flies were the cause. Thereupon they studied flies and their relation to disease. The boys made fly traps and a garbage pail which were gratefully received by Mr. Smith, who set about remedying causes of disease.

This project led to the further enquiries: What are the causes of bad colds? Why do measles, whooping cough, and mumps attack children more than they do adults? Why is it that Mrs. S. believes that pneumonia is the most fatal disease? A community program in charge of the children also resulted from the Smith project. It consisted of : Community Singing, Illustrative chart showing diseases Probable cause of typhoid, Illustrative chart showing methods of combating typhoid, Demonstration of flytrap, Illustrated talk on how to combat the fly, and Refreshments.

With reference to the scale, Mr. Collings is evaluated as follows:

	I. Theory & Practice.	II. Value of Point	III. Proportion Falling at This Point	Iv. Product of II X III
1. Subject matter as center logical, complete development, Child not in picture at all. Fixed course of study.	(5 (5	10		
2. Subject matter the aim, but modified to suit child's Int.	(12 (13	25		
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches.	(25 (25	50		
4. Child as center, but definite aims for society, health worthy homemembership, etc.	(50 50	100	50 50 100	10,000
5. Child as center no restraints, teacher follows	(25 (25	50		
Total credits.				10,000

Mr. Collings is worthy to be classed among the most progressive and efficient of the modern educators. His work is of especial value because of his very careful and painstaking attempt to verify the project theory, which places the child and his purposeful activity at the center. He is, therefore, given full credit under #4.

William Head Kilpatrick.

It is difficult to overestimate the services of William Head Kilpatrick to the cause of the elevation of the child and his immediate life interests over subject matter. He says that the educator "must not start with subject matter foremost in mind, for subject matter is primarily means and not primarily end. (22 Kilpatrick 'How Shall we Select the Subject Matter of the Elementary School Curriculum?" Journal of Educational Method.' p 3)

An extrinsic subject matter has too long been forced upon the child. By this he means a subject matter whose predominant emphasis is upon skills and informations rather than upon habits, attitudes, appreciations, and ideals, and which imparts just sufficient information to enable the learner to pass a test, and whose purpose is preparation for adult life. This is extrinsic learning because it is extrinsic to the interests of the learner. The use of extrinsic subject matter shaves down the content of the curriculum to things that can be tested in the light of skills and of information, degrades education to the task of indoctrination and propagandism, causes the child to cram for examinations, and perhaps to evade or cheat or attempt to 'beat' his comrades.

Intrinsic subject matter, on the other hand, is that which is vitally connected with the life and interests of the child. When problems arise in the life of the child its function is to aid him in their solution. The real test of subject matter is its ability to enter into the life of the child and change his behavior, its selection is determined by the educative activities in which the child engages.

Kilpatrick as well as Dewey clearly recognizes that education is doing. Children no longer share the activity of their parents, participate in their occupations, and share in the social community life. Now they have leisure time which they do not know what to do with. Thus the school must supply the experience which was formerly furnished by the home and the community.

Dr.Kilpatrick defines education as follows:'education is such a remaking of life as brings growth, and growth is along three lines of outlook and insight,- attitudes, appreciations, and techniques and controls.' (23 Kilpatrick 'Why Education is Changing" 'Journal of Educational Method.' p 136)

Also education must not overlook the moral training of the child. There are three imperative factors in moral education,- I see, I can, I will 'The child has not learned until he can and *will* do the thing.' (Ibid p 142)

There must necessarily be a new method to fit this new conception of subject matter. He says that there are two types of method, the narrow and the broad. The one is suited to the particular

type of subject matter, the other includes attitudes which the child takes. 'The wider sense of method knows that in actual life one thing never goes on by itself. This wider method demands that we consider the actual facts, the real world. The narrow sense of method faces always an abstraction and unreality,- a part of a total situation, a part that can no more exist by itself than could a man's head continue to live apart from his body." (24 Kilpatrick 'The Meaning of Method.' Journal of Educational Method.' p 18)

Dr. Kilpatrick recounts his efforts to find a term to suit this new method. He says, 'The unifying idea was to be found in the conception of whole hearted, purposeful activity proceeding in a social environment.' (25 Kilpatrick, 'The Projetc Method." "Teachers' College Bulletin Tenth Series, No 3, Oct. 12,1918, p 320) To this purposeful act he applies the name 'project.'

The purposeful act is definitely connected with the worthy life. 'Not that all purposes are good or that the worthy life consists of purposeful activity and in mere drifting." (Ibid p 322) Again, 'If the purposeful act be in reality the typical unit of the worthy life then it follows that to base education on purposeful acts is exactly to identify the process of education with worthy living itself.' (Ibid p 323)

Like Dewey, DeGarmo and other great educators, he recognizes the necessity of a sound psychological basis for his method. He thus enumerates the laws of learning which are: the law of readiness, the law of effect and the law of exercise, giving the psychological implications. He also gives the different types of projects; type 1, purpose to embody some idea or plan in external form; type 2,- aesthetic, purpose to enjoy some experience; type 3, purpose to solve some problem; type 4, purpose to obtain some degree of skill. The first and fourth types are especially adapted to the problem solving method,- purposing, planning, executing, and judging.

He believes that purposeful activity or the project method of teaching is particularly adapted to the needs of a training for life in a democracy. He says that this type of procedure 'Furnishes better citizens, alert able to think and act and too intelligently critical to be easily hoodwinked .... self reliant, ready of adaptation to the new social conditions that impend." (Ibid p 334)

As already stated Dr Kilpatrick maintains that education must minister to the child's present life and needs. He, as well as Dewey, conceives of education as a means to growth. 'Education is essentially a vital process, a living and growing. That this may best take place, the real teacher must be sensitive as an artist to the stage reached and to the signs of growth in children. ..... Deciding what next to do must be an activity shared by teacher and pupils. ....If the teacher and pupil are to work best and grow most in living they must exercise real responsibility. ' (20 Kilpatrick, 'Subject Matter and the Educative Process.' Journal of Educational Method. p 372)

He believes "education based on the purposeful act prepares best for life while at the same time it constitutes the present worthy life itself." (25 Kilpatrick "The Project Method." Teachers' College Bulletin, Tenth Series, No 3, Oct. 12,1916, p 325)

The child's present life and interest is the basis for the selection of subject matter. "We must start with life itself and its present expansion as our keynote ..... Present expansion at one and the same time provides best for learning, gives edge and keenness to present living, and promises best for later living." (22 Kilpatrick, "How Shall we Select the Subject Matter of the Elementary School Curriculum?" Journal of Educational Method p 3) Thus he concluded "The educative process is good and sound, first in the degree that learning is intrinsic vs extrinsic, that is demanded now by life and functions now to further present living, and second in the degree that what is learned serves to raise life continuously here and now to higher levels." (Ibid p 6)

Dr. Kilpatrick would release Jimmie from bondage to an extrinsic subject matter which he would be compelled to re-cite or to give back in an examination. To be sure under the old regime Jimmie might be able to fool the teacher with vague, general statements or a few general statemenys which he had "crammed" into his head the night before, but that would not give him any sense of satisfaction or achievement. Under Dr. Kilpatrick he would not have to resort to any of these expedients for his examination would not consist in answering a certain number of set questions but of his ability to construct useful articles, to purpose, to help his fellow students plan an exhibition program, to see his school subjects such as history in their real life setting, to appreciate not only the best in art, music, and sculpture, but also the value of real comradeship with his fellow pupils and with his teacher, to initiate, carry out, and criticise activities which appealed to him as worthful.

Jimmie's teacher would see that the laws of learning referred to above, were followed in his education in order that it might be effective and not time be wasted.

His discipline would not be of the repressive variety which elicited outward compliance while underneath he maintained a rebellious spirit and disposition to do as he wished when strict control was lifted. Rather he would be led to see the desirability of right conduct, to recognize that it was really valuable to him and worth his efforts at self control. In short, Jimmie would feel under Dr. Kilpatrick that he was a person whose ideas were worthy of consideration, who had activities to engage in which really appealed to him as being valuable, who was encouraged to use his own judgment and initiative, and yet who must recognize the rights of others and cooperate with them toward the furtherance of the common good.

Measured by the scale which we are using, Dr. Kilpatrick is given the following rating.

	I. Theory & Practice.	II. Value of Point	III. Proportion Falling at This Point		IV. Product of II X III.
1. Subject matter as center logical, complete development. Child not in picture at all fixed course of study.	(5 (5	10			
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25			
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	(25 (25	50	10	10	500
4. Child as center - but definite aims for society, health, worthy home membership, etc.	(50 (50	100	50 40	90	9,000
5. Child as center - no restraints, teacher follows.	(25 (25	50			
Total credits.					9,500

Although Dr. Kilpatrick leaves classes #1 and #2 behind, and clearly falls mainly under class #4 in making the child and his personal life needs the thing of paramount importance, he yet evidently is more of a theorist than a practical educator.
It is easier to bring against him the charge that he is a visionary theorist than it is to offer any such criticism of John Dewey. He is, therefore, given a credit of 50 points for theory, but only 40 points for practice under class #4. A credit of 10 points is given him under class #3, because he has sometimes a slight tendency to that view point.

Charles McMurry.

One of the modern disciples of the great Herbart who yet has a unique contribution of his own to make to the doctrine of interest is Charles McMurry. Like his great predecessor he stresses the importance of appealing to the child's interest, and of supplying him with a rich field of subject matter. In his emphasis upon a well thought out method helping the child to build up general from individual notions and thus applying the knowledge gained he reminds one of De Garmo.

He states that he agrees with Locke in believing the will to be important in education, but criticises his exclusive emphasis upon the will to the neglect of emotion. He does not agree with Locke that the feelings are fluctuating and the will alone stable and to be depended upon. Thus he would seem not so much to reject the older conception of education as to transcend it, that is to keep all its valuable elements and richly supplement them.

Like Herbart he holds that character not knowledge or discipline is the chief aim of education. The development of character insures the best individual development, the best training for society and citizenship, and the most complete growth of all the capacities of the child. He says 'our country may have vast resources and great opportunities, but everything in the end depends upon the moral quality of its men and women.' (28 Mc Murry, "The Elements of General Method." p 14)

Dr. McMurry considers subject matter extremely important and pays much attention to it in his system of education, but its sole claim to value is in its ability to nourish and educate the child. He and his interest are the important considerations. He says, 'knowledge which contains no springs of interest is dead like faith divorced from works." (Ibid p 101) He counsels "study the child and find out his interest at different ages. Then select subject matter suited to each age.' (29 McMurry 'Conflicting Principles in Teaching and how to Adjust Them." p 121) He insists 'all knowledge has to be attached to interest in order to function.' (Ibid p 122)

Yet he does not discard the textbook, rather he counsels that it be used by the teacher as an outline and supplemented richly. For the textbook alone cannot be given adequate treatment; it takes up important topics too briefly. In the use of text books the teacher must avoid the danger of dictation which is a foe to independent thought which is so essential. He says 'The real freedom toward which children should be trained is the freedom that comes from thinking out and knowing the truth.'(Ibid p 95)

The interest which Mr McMurry insists upon so consistently is intrinsic 'native to the subject and springs up naturally when the mind is brought face to face with something attractive.' (28 McMurry, 'The Elements of General Method." p 87)

Direct interest is most valuable because it reaches to the spontaneous and instinctive forces. He contends that subjects of instruction should be interesting before the teacher lays his hands upon them. Rather curiously he upholds this position by giving as an example the book "Robinson Crusoe" which Rousseau, the foe to almost all text book instruction, also advocated.

McMurry maintains that teachers are not to create, but to direct interest; also interest is not just making things easy. The creative interest children feel is present when they shoulder their own tasks and ask for leadership from the teacher. With the great Froebel he recognizes the significance of self activity; he maintains it is the basis of a strong interest surmounting the difficulties involved in carrying out a worth while project.

Thus the doctrine of interest will help solve the problem of the place in education of discipline so strongly advocated by Locke and others of the old school. Both interest and effort,- a demonstration of will power,- must be present in the educational process. He gives examples of men like David Livingstone whose absorbing interest in an undertaking challenged them to almost unbelievable effort. Thus when a child has a deep enough interest in the educational task, he will put forth the necessary effort.

Interest is thus one of the basic principles to be considered in any educational method. Another most important principle is correlation which, he says 'seeks to overcome the present unconnectedness of studies, lays stress upon relations and seeks to enlarge the range of a child's thoughtfulness and rational survey, and his self activity and insight by so planning and laying out the course of study that the sciences everywhere may be brought into more vital juxtaposition that the child's knowledge may be unified and his practical power over it increased.'([28] McMurry, "The Elements of General Method." p 164)

The principle of correlation he maintains obviates two great dangers of education, loose and shallow thinking and overloading with encyclopedic knowledge. Its scope is broader than school studies. 'Correlation is so bound up with the idea of character forming that it includes more than school studies. It lays hold of home influence and of the experiences of life outside of the school and brings them into the daily service of the school studies.' (Ibid p 162)

In this connection he gives proof of the departure from the disciplinary theory of education by maintaining that the principle of correlation draws the feelings and the will clearly into its circle of operation, 'All knowledge properly taught generates feeling. The will is steadily laying out during the formative period of education the highways of its future activities." (Ibid p 163)

Correlation may be brought about in five ways; 1 by the close serial connection of ideas in a single study; 2 by establishing relations between different studies, as in the case of geography which connects with so many other studies; 3 by establishing

relations between school and home life; 4. by the proper laying out of the courses of study; 5. by observing and fixing relations as facts are learned.

McMurry's likeness to DeGarmo is shown in his careful attention to the processes of induction and deduction in which the mind proceeds from particular to general notions and back again. He holds 'Inductinn is the natural highway of human thought in every line of study bringing all the mental forces into an orderly, successive, helpful activity.' (26 McMurry 'The Elemtnes of General Method.' p 221)

With Herbart he recognizes the necessity of absorption and reflection in the educative process. 'The acquisitinn and assimilation of knowledge in different subjects will be found to exhibit the mental states of absorption and reflection. .... The effect of such mental absorption and reflection is to build up concepts.' (Ibid p 227)

Deduction naturally succeeds the process of induction. 'As fast as psychical concepts are formed we clamber upon them and try to get a better view of the field around us. Like captured guns we turn them at once upon the enemy and make them perform service in new fields of conquest. If a new case or object appears, we judge of it in the light of our acquired concepts, no matter whether they are complete and accurate or not. This is deduction.' (Ibid p 253)

Again McMurry shows his kinship with Herbart and DeGarmo by his emphasis upon the importance of the psychological fact of apperception. 'If a new idea drops into the mind, like a stone upon the surface of the water, it produces a commotion. It acts as a stimulus or wakener to the old ideas sleeping beneath the surface. .... But what ideas are thus disturbed. .... Those which possess sufficient kinship to this newcomer to hear the call respond. .... The others sleep on undisturbed.' (Ibid p 271)

The conclusions which he draws from his study of apperception are: 1. Previous knowledge is of great value; 2. The use of our acquired stock of ideas involves a constant working over of old ideas; 3. In the acquisition of new knowledge apperception has its special feeling of conquest; 4. Apperception welds the old and the new into one piece, brings about the close mingling and association of all, i e its unity; 5. The teacher must know the child in order to be acquainted with the extent of his knowledge; 6. The general plan of studies should be based upon the principle of apperception; 7. Apperception welds together school studies the home, and outside life of the child; 8. Teaching in accordance with the laws of apperception brings to the child a sense of power; 9. The apperceptive process constantly works toward the development of concepts; 10. Teachers must know how to use the apperceptive mass of knowledge possessed by the pupil.

Mr. McMurry's position with regard to the place of the will

in education has already been referred to. He says. 'We may say that involuntary attention, habit, and interest supply three powerful criticisms against the old doctrine of sheer will in education. The mental machinery presupposed as a basis of interest and habit is an indispensable requisite for the exercise of free will, and in interest is found even the motive and first step in the process of self realization.' (28. McMurry,' The Elements of General Method.' p 314)

Underlying all of McMurry's educational conceptions is the idea that education is to minister to the life interests of the child. These are necessarily interests which appeal to the present needs of the child. It is thus apparent that,with Kilpatrick he feels that the child is naturally interested in adult undertakings. He says. 'The school master should sieze upon these basal ideas upon which our national and social and industrial life has been organising itself, and make them the main lines of movement in the thought work of the children. " (Ibid p 191)

Under Dr. McMurry Jimmie would find that he still had a considerable body of subject matter to master. History would be given him that he might survey the field of human life and activity and profit by its moral examples. Nature study would open for him the doors of the real world in all its beauty and variety. The formal sciences would furnish him with useful and disciplinary knowledge, they would, however, occupy second place because of their formal nature rather than richness of content. History and natural science, on the other hand, would occupy first place in his education because of the richness of their content and their power to awaken interest and furnish strong and legitimate incentives to mental activity.

Jimmie's education would be based upon a thorough knowledge of psychology. His interests would be carefully studied and instruction adapted to them. Also knowledge would not be presented to him in a helter skelter encyclopedic manner, but in accordance with the laws of apperception. For this reason he would be able to work happily on the task of building up from his particular experiences, general ideas which like living, growing things would be everreaching out to assimilate new knowledge.

During this process the principle of correlation would be carefully observed; he would realize that the river that ran through his village had some relation to that on the map in his geography; that adding and subtracting were the processes used in making purchases at the grocery store, and that the rules of grammar were to be used in a recitation in arithmetic.

Jimmie would be expected to be a boy who had gumption enough to carry through a project once he had undertaken it, to be willing to really work at his own education. He would not, however, be encouraged to work doggedly with no conception of the value of his undertaking. Rather he would be encouraged to put forth his efforts

in an enterprise which interested him and which was capable of calling forth his efforts and finest feelings.

He would be made to feel that the development of a strong character which yet was aware of relationships with and obligations to his fellows was the goal toward which he was striving.

	I. Theory & Practice.	II. Value of Point.	III. Proportion Falling at This Point		IV. Product of II X III
1. Subject matter as center logical, complete development. Child not in picture at all. Fixed course of study.	(5 (5	10			
2. Subject matter the aim but modified to suit child's interest.	(12 (13	25			
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child	(25 (25	50	5 5	10	500
4. Child as center - but definite aims for society health, worthy home membership, etc.	(50 (50	100	50 40	90	9,000
5. Child as center - no restraints, teacher follows	(25 (25	50			
Total credit.					9,500

It is quite plain that Mr. McMurry accords a much more important place to subject matter than do Dewey and Kilpatrick. Yet he does not revert to the old position in which the child is in thraldom to subject matter; rather he works out a system of education as compact as that of DeGarmo, and based upon a more advanced psychology. Because of this attitude toward subject matter, he is given a credit of 10 points under class #3.

As already stated, he certainly does put the child at the center, and so is worthy of the credit of 90 points under class #4. He is given more credit for theory than for practice, because of the difficulty of putting theory into practice.

Franklin Bobbitt.

Franklin Bobbitt aggrees with Kilpatrick and Dewey in their belief that the life and growth of the child are matters of supreme concern for the educator. 'One should live abundantly if one is to be properly educated, but one should not at the same time be conscious of the educational aspect of his living except in retrospect. The little child should be so occupied in life, so lost in his living that he is not aware that he is being educated. Certainly there should be no recognition on his part of the fact that his memory is being stored with knowledge." (5 Bobbitt 'The New Technique of Curriculum Making.' "The Elementary School Journal." p 47)

Again, 'According to this idea the business of education is to condition the growth of individual's powers and qualities. .... In summary his growth in every power that should be made to grow. Education is the process of growing human beings. .... Modern education has discovered the child and the potential things within him that are to be cultivated and made to grow into their mature forms." (Ibid p 48)

He criticises the old education saying that man is not simply an intellectual resevoir to be filled, rather he is an infinitely complex creature of endlessly diversified activity. Action is the thing of which life is composed. The child is not primarily a knower but a doer. Thus the new education makes its chief business the cultivation of abilities which are potential in each growing individual. Thus the method of the new education is not subject storage, but activity, conduct, behavior. The child learns to act by acting. The objectives of education are, therefore, to be discovered in the activity analysis. 'Education is preparation for life, and life is a series of activities. .... Let us discover what the activities are which make up man's life, and we have the objectives of education. (Ibid p 49)

The activity analysis is criticised because it: neglects the less materialistic interests, neglects the inner and stresses the outer activities, makes present imperfect action the norm, and bases investigation on child nature which is different from adult. He, however, contends . 'In such analysis we must recognize the fact that this intellectual action which we hear and vision is one of the most incessant of human activities. It is a thing to be cared for through a carefully devised and elaborate educational program." (4 Bobbitt, What Understanding of Human Society Should Education Develop," The Elementary School Journal." p 292)

With these facts in view there are certain difficulties to be met in making out a school curriculum: 1. Uncertainty as to the function of the school, the acquisition of text book material vs. all-sided growth of the individual; 2. Traditions as to the aims or objectives of education - content subjects vs a carefully guided series of normal life experiences; 3. The primitive character of educational science with regard to educational objectives; 4. Uncertainty as to educational methods or procedures,- text book vs right living in all its manifestations; 5 Traditions relative

to the methods of procedure; 6. The subject teaching fallacy; 7. The isolation of the school from the life of the community.

It is the function of education, he maintains, to prepare both for present and future living. Education has "discovered the child, but it does not see him merely as a child. It sees the entire seventy year unit of life as the central thing of its concern. It sees man within the child as clearly as it sees the child. It sees its task as one of bringing into full and complete being this man within the child." (5 Bobbitt "The New Technique of Curriculum Making." "The Elementary School Journal." p 45)

Under Mr. Bobbitt Jimmie would find himself freed from a stiff curriculum and regime. His education would not be imposed upon him by an inexorable fate in the form of a formal teacher. Rather all his life interests and activities would be studied. Then the teacher would guide him into specific types of action under these various heads:- health activities, citizenship, language, leisure, religious, parental, and activities involved in unspecialized practical arts.

Mr. Bobbitt is evaluated as follows:-

	I. Theory & Practice.	II. Value of Point.	III. Proportion Falling at This Point.		IV. Product of II x III
1. Subject matter as center logical, complete development, child not in picture at all. Fixed course of study.	5 5	10			
2. Subject matter the aim but modified to suit child's interest.	12 13	25			
3. Aim as in #2, but further modified by adaptation to local appeals and other attractive approaches for the child.	25 25	50			
4. Child as center - but definite aims for society health, worthy home membership, etc.	50 50	100	45 40	85	8,500
5. Child as center - but no restraints teacher follows.	25 25	50	10 5	15	750
Total Credit.					9,250

Since Mr. Bobbitt would have education meet all the life needs of the child, stimulate all his activities, and see that they include a range as wide as that of life lived worthily among his fellows, he is given a credit of 90 points under class #4,- 50 for theory and 40 for practice.

Because of his stress upon the activity analysis with its tendency toward following conditions as they are rather than setting up definite aims for things as they should be, he is given 15 credits under class #5.

Chapter XI.

Final Summary.

The conception of the child and his present life and interests as the all important factors in education has been greatly enriched and infinitely expanded in scope since the days of the educational prophet Rousseau. Often inconsistent, confused, unsocial, and even petty Rousseau yet deserves great credit because of his service in formulating these epoch making conceptions in education.

Of a very different character and educational insight was the gentle Pestalozzi. He struggled manfully to apply the principles enunciated by Rousseau. In doing so he became convinced of the necessity of studying the psychological nature and capacities of the child. Thus he laid great stress upon the senses and observation as the tools of learning. He was passionately fond of the child and devoted himself to his education as a means of enabling him to fill the most worthful place in society of which he was capable.

Imperfect as his faculty psychology was, unsystematic and even inconsistent as he was in method often slipping back into the old conception of the paramount importance of subject matter, and faulty as he was in his conception of education as preparation for adult rather than participation in present life, Pestalozzi yet by his love for the child and his insistence upon the importance of sense perception and observation, rendered a great service to the child and an education suited to his capacities and needs,

Under the loving Froebel with his mystical, deeply religious, yet seeking and exploring mind, the little child commenced to come into his own. Based as his education was upon the principle of the living unity of all things,- animate and inanimate,- he yet reached in his conception of the absolute necessity of self activity of the child an educational principle which is today basic. Because of his realization of the importance of self activity he insisted upon the educative value of nature study and manual training thus introducing them into the school curriculum.

The kindergarten was the new type of school which he initiated in order to carry out his educational convictions. Symbolical and adult as his methods with his 'gifts" and 'occupations' are, the principles of self activity, creativity, and initiative are of tremendous significance in the education of the child.

A far better educational psychology and sounder method was worked out by the great Herbart who was predominantly a student and school man. He stressed the importance of apperception and formulated the formal steps in learning which have ever since been influential. Literature, history, language, and social studies he esteemed very highly, yet they were taught according to proper psychological

methods and made a means of enriching the life of the child, presumably with the chief emphasis upon preparation for adult life.

He insisted that the interests of the child be taken into account, yet not a selected few, but those having to do with all sides of life. Yet he believed that education should take account of the age and development of the child. He worked out something which resembled the culture epoch theory.

Withal he held that character was the chief end of education. A character enriched and ennobled by acquaintance with the best and highest in literature and history.

The greatest service which Horace Mann rendered the cause of the child and an education in which he was the central figure, was in his work as Secretary of the Massachusetts Board of Education. He organized, unified, and popularized the public school system, providing for good school building and equipment and training teachers, as well as establishing libraries. Against bitter opposition he built up the first really efficient system of public school education and entrenched it firmly in the interests of the people.

He was intelligent and informed with regard to educational methods, spending time abroad studying the most approved methods, and writing copiously in his famous 'Reports' concerning these matters.

One of the foremost pupils of the great Herbart was Charles DeGarmo. He accepted his predecessor's valuation of subject matter as well as his insistence upon a psychological foundation for education. He, however, arrived at a much clearer and sounder educational psychology,- a functional psychology,- as well as a more concise and correct method.

He is crystal clear in his delineation of the stages of learning and methods adapted to them. He has a remarkable grasp of the working of the mind in building up general from individual notions, and then in applying these notions to particular cases. He held to the functional view of subject matter as related to the child and probably to the view that it should minister to the present life interests of the child.

For his insistence upon the child and his present life interests as the chief determiners in educational theory and practice at a time when he stood practically alone in these conceptions, Francis W. Parker deserves one of the foremost places in the history of American education.

Like the great Pestalozzi he insisted upon studying the child and then experimenting and working out subject matter and methods that would fit him. His teaching was governed by these conceptions even when he had a very limited training and experience. He studied, read, and travelled until he finally became fully acquainted with educational methods which accepted the child and his self activity as the important factors in education, and until

he had rendered a lasting service to the institution of schools governed by these conceptions.

The life and growth of the child are the all important considerations of John Dewey. The present, active, expanding life which yet has a natural interest in adult activities. The school should not be a hot house affair divorced from the streams of life. Rather it should take its cue from the natural activities and interests of the child, and provide him an environment which will foster his best and most inclusive interests, and fit him for participation in the present as well as future social life.

The child's purposeful activities should be enlisted by the use of the project method which would allow him freedom from strict discipline to work out his own aims and purposes which are yet carefully guided by the teacher.

The contributions to the doctrine of interest of the other modern educators briefly studied above have not been inconsiderable. James F. Hosic, and Sara L. Chase accept the project method as the means of providing the child the opportunity to exercise and expand all his capacities to the fullest possible extent. The project is carefully defined, different types are recommended to utilize and train different capacities, the implications of teaching by this method are stated and possible applications are pointed out.

Ellsworth Collings has rendered the valuable service of carrying out an experiment with two schools the subject matter of one of which was traditional, and of the other based upon the principles of the project method. His conclusions showed the superiority of the project method with regard to: acquisition of common facts and skills, attitudes of the boys and girls, attitudes of their parents toward the school, change of conduct in boys and girls, and change of conduct in their parents.

The conception of a changing education needed in a changing society is reached by William H. Kilpatrick. An education which calls for purposeful activity of the child leading him to participate creatively in the worthful enterprises of society. An education which rejects the traditional use of subject matter and insists upon its having intrinsic value ministering to the life needs of the child. Also an education which uses the project method.

McMurry with Herbart and DeGarmo stresses the great importance of subject matter in the education of the child. He, however, prizes it only for its value to the child and his immediate interests. Like his great predecessors, he stresses the psychological basis of education, reaching, however, a sounder functional psychology. He recognizes the educational implications of the mind in its concept building activities as well as its tendency to constantly correlate and unify knowledge.

Along with Dewey and Kilpatrick, Franklin Bobbitt conceives of life and growth of the child as of utmost importance in education. He criticizes the subject matter enthralled education

and uses the activity analysis as a means of determining proper subject matter and method.

There are other great educators whose names might well have been included in this necessarily incomplete study of the history of the Doctrine of Interest. Enough, however, have probably been given, together with their most important contributions, to make it clear that educators must henceforth make the child and his immediate interests, which include adulty activities, the very center of their systems. As physical slavery has practically ceased, so the mental slavery of the child to dead subject matter must be stamped out completely, and he must be released to a life of the fullest possible realization of all his capacities and opportunity to develop continuously.

In conclusion a comparison of the final ratings of these educators may be of interest and value.

Jean Jacques Rousseau	3975
Johann Heinrich Pestalozzi	4975
Horace Mann	5175
Friedrich Froebel	5475
Johann Friedrich Herbart	5875
Charles De Garmo	7500
Francis Wayland Parker	8750
Franklin Boobitt	9250
William Head Kilpatrick	9500
Charles McMurry	9500
Hosic and Chase	9500
Ellsworth Collings	10000
John Dewey	10000

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